FULL ESTIMATED COST

ENTRY SESSION 0.84 0.84

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STRUCTURE FILE UPDATES: 2 MAY 2006 HIGHEST RN 882569-16-6 DICTIONARY FILE UPDATES: 2 MAY 2006 HIGHEST RN 882569-16-6

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TSCA INFORMATION NOW CURRENT THROUGH January 6, 2006

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Structure search iteration limits have been increased. See HELP SLIMITS for details.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

http://www.cas.org/ONLINE/UG/regprops.html

=>
Uploading C:\Program Files\Stnexp\Queries\10614498.str

chain nodes :

1 2 3 4 5 6 7 8 9 10 11 12 17 20 21

chain bonds :

1-2 2-3 3-4 3-5 5-6 5-7 7-8 7-9 9-10 10-11 10-12 12-17 12-20 20-21

exact/norm bonds :

1-2 2-3 3-4 3-5 5-6 5-7 7-8 7-9 10-11 10-12 12-20

exact bonds :

9-10 12-17 20-21

G1:H,Ak

Match level :

1:Atom 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS 7:CLASS 8:CLASS 9:CLASS 10:CLASS 11:CLASS 12:CLASS 17:CLASS 20:CLASS 21:CLASS

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR

 $\begin{array}{c|c} CY & O & H \\ \hline \\ G1 & G1 & O \end{array}$ 

G1 H, Ak

Structure attributes must be viewed using STN Express query preparation.

=> s l1

SAMPLE SEARCH INITIATED 18:00:21 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 71 TO ITERATE

100.0% PROCESSED 71 ITERATIONS 9 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE \*\*COMPLETE\*\*
BATCH \*\*COMPLETE\*\*

PROJECTED ITERATIONS: 915 TO 1925 PROJECTED ANSWERS: 9 TO 359

L2 9 SEA SSS SAM L1

=> s l1 ful

FULL SEARCH INITIATED 18:00:26 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 1281 TO ITERATE

100.0% PROCESSED 1281 ITERATIONS 211 ANSWERS

SEARCH TIME: 00.00.01

L3 211 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS SINCE FILE TOTAL ENTRY SESSION

FULL ESTIMATED COST 166.94 167.78

FILE 'CAPLUS' ENTERED AT 18:00:36 ON 03 MAY 2006 USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT. PLEASE SEE "HELP USAGETERMS" FOR DETAILS.

10614498

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FILE COVERS 1907 - 3 May 2006 VOL 144 ISS 19 FILE LAST UPDATED: 2 May 2006 (20060502/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 13

L4 55 L3

=> s 13 and py<2004 55 L3

23840164 PY<2004

L5 38 L3 AND PY<2004

=> d abs bib hitstr 1-38

L5 ANSWER 1 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB The invention relates to methods for monitoring patient response to histone deacetylase inhibitors (e.g., suberoylanilide hydroxamic acid (SAHA)) or other therapeutic agents by measuring the level of thioredoxin in body fluids, tissues, and/or cells, such as peripheral blood mononuclear cells, plasma, or serum. The invention also relates to methods of monitoring and/or assisting with the diagnosis of a wide variety of thioredoxin-related diseases and conditions, such as inflammatory diseases, allergic diseases, autoimmune diseases, diseases associated with oxidative stress or diseases characterized by cellular hyperproliferation.

AN 2005:1355554 CAPLUS

DN 144:81158

TI Use of thioredoxin measurements for diagnostics and treatments

IN Marks, Paul A.; Ungerstedt, Johanna

PA USA

SO U.S. Pat. Appl. Publ., 39 pp., Cont.-in-part of U.S. Ser. No. 369,094. CODEN: USXXCO

DT Patent

LA English

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	US 2005288227	A1	20051229	US 2005-144301	20050603
	US 2003235588	<b>A1</b>	20031225	US 2003-369094	20030214 <
	US 2006009526	A1	20060112	US 2005-223405	20050909
	US 2006009527	<b>A1</b>	20060112	US 2005-223547	20050909
PRAI	US 2002-357383P	P	20020215		
	US 2003-369094	A2	20030214		

US 2004-577089P P 20040604

IT 174664-68-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(use of thioredoxin expression measurements for diagnostics and monitoring treatments with histone deacetylase inhibitors and other therapeutic agents for hyperproliferative diseases)

RN 174664-68-7 CAPLUS

CN Hexanamide, 6-[[[(3-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

L5 ANSWER 2 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB The present invention relates to a method for the treatment of cancer in a patient in need thereof. The method comprises administering to a patient in need thereof a first amount of a histone deacetylase inhibitor in a first treatment procedure, and a second amount or dose of radiation in a second treatment procedure. The first and second treatments together comprise a therapeutically effective amount The combination of the HDAC inhibitor and radiation therapy is therapeutically synergistic.

AN 2003:855790 CAPLUS

DN 139:345907

TI Combination therapy for the treatment of cancer using histone deacetylase inhibitors and radiotherapy

IN Sgouros, George; Richon, Victoria M.; Marks, Paul A.; Rifkind, Richard A.

PA Sloan-Kettering Institute for Cancer Research, USA

SO PCT Int. Appl., 94 pp. CODEN: PIXXD2

DT Patent

LA English

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ΡI	WO 2003088954	A1 20031030	WO 2003-US11812	20030415 <				
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	CA 2482508	AA 20031030	CA 2003-2482508	20030415 <				
	AU 2003226408	A1 20031103	AU 2003-226408	20030415 <				
	US 2004018968	A1 20040129	US 2003-413422	20030415				
	EP 1501489	A1 20050202	EP 2003-747011	20030415				
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	BR 2003009280	A 20050222	BR 2003-9280	20030415				

20030415 T2 20051013 JP 2003-585706 JP 2005530734 20030415 CN 2003-813849 CN 1728991 20060201 Α PRAI US 2002-373033P Р 20020415 WO 2003-US11812 W 20030415

OS MARPAT 139:345907

IT 174664-68-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(combination therapy for treatment of cancer using histone deacetylase inhibitors and radiotherapy)

RN 174664-68-7 CAPLUS

CN Hexanamide, 6-[[[(3-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

## RE.CNT 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 3 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

The invention provides a novel method for treating and/or preventing thioredoxin (TRX)-mediated diseases and conditions, by administering to a subject in need of such treatment a therapeutically effective amount of a histone deacetylase (HDAC) inhibitor or a pharmaceutically acceptable salt or hydrate thereof. The HDAC inhibitor can alter the expression of a thioredoxin-binding-protein (e.g. TBP-2), which in turn can lead to an altered TRX/thioredoxin-binding-protein cellular binding interaction, resulting in an increase or decrease in the level or activity of cellular TRX, for example the expression level or reducing activity of TRX. Thus the invention relates to the use of HDAC inhibitors in a method of preventing and/or treating a wide variety of thioredoxin (TRX)-mediated diseases and conditions, such as inflammatory diseases, allergic diseases, autoimmune diseases, diseases associated with oxidative stress or diseases characterized by cellular hyperproliferation.

AN 2003:678618 CAPLUS

DN 139:207775

TI Method of treating TRX mediated diseases by administering histone deacetylase inhibitors

IN Richon, Victoria M.; Marks, Paul A.; Rifkind, Richard A.; Butler, Lisa M.

PA Sloan-Kettering Institute for Cancer Research, USA

SO PCT Int. Appl., 97 pp.

CODEN: PIXXD2

DT Patent

LA English

	PATENT	NO.			KIND DATE				APPL	ICAT:	ION I	DATE							
ΡI	WO 2003070188 WO 2003070188				A2 20030828 A3 20040219			0030828 WO 2003-US4924						20030214 <					
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		GM,	HR,	HU,	ID,	IL,	IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,		
		LS,	LT,	LU,	LV,	MA,	MD,	MG,	MK,	MN,	MW,	MX,	ΜZ,	NO,	NZ,	OM,	PH,		

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                          A2
                                20041208
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                                                                    20030214
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             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
     JP 2005525345
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                                20050825
                                            JP 2003-569148
PRAI US 2002-357383P
                          P
                                20020215
     WO 2003-US4924
                          W
                                20030214
     MARPAT 139:207775
OS
IT
     174664-68-7
     RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL
     (Biological study); USES (Uses)
        (use of histone deacetylase inhibitors for preventing/treating
        thioredoxin (TRX) mediated diseases or conditions associated with
        inflammation and cellular hyperproliferation)
RN
     174664-68-7 CAPLUS
     Hexanamide, 6-[[[(3-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI)
CN
     (CA INDEX NAME)
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ANSWER 4 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN
L5
AB
     A method of treating an autoimmune disease comprising administering to the
     subject a treatment effective amount of a histone hyperacetylating agent, or
     a pharmaceutically acceptable salt thereof.
AN
     2003:473272 CAPLUS
DN
     139:47148
TI
     Method of treating autoimmune diseases
TN
     Kammer, Gary M.; Mishra, Nilamadhab
PA
     U.S. Pat. Appl. Publ., 40 pp., Cont.-in-part of U.S. Ser. No. 718,195.
SO
     CODEN: USXXCO
DT
     Patent
     English
LA
FAN.CNT 2
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1	CWIA . A	~14 T	4																			
		PAT	CENT :	NO.			KIN	<b>D</b> 1	DATE		APPLICATION NO.							DATE				
I	ΡI	US	2003	1145	25		A1 20030619				1	US 2	002-	20020520 <								
		WO 2002055017					A2 20020718				WO 2001-US43871						20011119 <					
		WO 2002055017						A3 20030123														
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				ŪĠ,	US,	UΖ,	VN,	YU,	ZA,	ZM,	ZW											
			RW:	GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	UG,	ZM,	ZW,	AT,	BE,	CH,			

CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG 20050928 US 2005-237245 US 2006030626 A1 20060209 PRAI US 2000-718195 B2 20001121 WO 2001-US43871 Α 20011119 US 2002-151481 **A3** 20020520 OS MARPAT 139:47148 174664-68-7 IT RL: DMA (Drug mechanism of action); PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses) (method of treating autoimmune diseases using a histone hyperacetylating agent) RN 174664-68-7 CAPLUS Hexanamide, 6-[[[(3-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI) CN

C1 
$$NH-C-NH-(CH_2)_5-C-NH-OH$$

L5 ANSWER 5 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB The parallel synthesis of novel inhibitors of procollagen C-terminal proteinase is described. The synthetic strategy allowed for the facile synthesis of a large number of side-chain diversified diamino acid hydroxamates, of which the d-diaminopropionic acid derivs. were shown to be single digit nanomolar PCP inhibitors.

AN 2003:442742 CAPLUS

(CA INDEX NAME)

DN 139:245665

TI Novel Inhibitors of Procollagen C-Terminal Proteinase. Part 1: Diamino Acid Hydroxamates

AU Delaet, N. G. J.; Robinson, L. A.; Wilson, D. M.; Sullivan, R. W.; Bradley, E. K.; Dankwardt, S. M.; Martin, R. L.; Van Wart, H. E.; Walker,

CS CombiChem Inc., San Diego, CA, 92121, USA

SO Bioorganic & Medicinal Chemistry Letters (2003), 13(13), 2101-2104

CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science B.V.

DT Journal

LA English

OS CASREACT 139:245665

IT 279255-50-4P

RL: PAC (Pharmacological activity); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(solid-phase synthesis and structure-activity relations of diamino acid hydroxamates as inhibitors of procollagen C-terminal proteinase)

RN 279255-50-4 CAPLUS

CN Propanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-3-[[[(4-ethoxyphenyl)amino]carbonyl]amino]-N-hydroxy-, (2R)- (9CI) (CA INDEX NAME)

## RE.CNT 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

A method of treating an autoimmune disease (for example, Systemic Lupus Erythematosus) comprises administering to the subject a treatment effective amount of a histone hyperacetylating agent, or a pharmaceutically acceptable salt thereof. Methods of screening compds. useful for the treatment of autoimmune disease are also disclosed. Trichostatin A down-regulated CD154 and interleukin 10 and up-regulated interferon-γ in SLE T cells.

AN 2002:539476 CAPLUS

DN 137:88450

TI Method of treating autoimmune diseases with histone hyperacetylating agent

IN Kammer, Gary M.; Mishra, Nilamadhab

PA Wake Forest University, USA

SO PCT Int. Appl., 31 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 2

FAN.	PATENT NO.							KIND DATE			APPL:	ICAT:	DATE							
PI		2002055017								1	WO 2	001-	20011119 <							
	WO	2002	0550	17		<b>A</b> 3	20030123													
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			BF,	ВJ,	CF,	CG,	CI,	CM,	GΑ,	GN,	GQ,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG		
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	US	2003	0826	66		<b>A</b> 1		2003	0501	1	US 20	002-	1875	86		20020702 <				
PRAI	US	2000	-718	195		Α		2000	1121											
	WO	2001	-US4	3871		Α		2001	1119											
IT																				

IT 174664-68-7

RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(method of treating autoimmune diseases with histone hyperacetylating agent)

RN 174664-68-7 CAPLUS

CN Hexanamide, 6-[[((3-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI)

(CA INDEX NAME)

C1 
$$NH-C-NH-(CH_2)_5-C-NH-OH$$

L5 ANSWER 7 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN GI

Ι

The invention relates to the preparation and use of title compds. I (A = selected from the group comprised of CR5R6, CR5R6CH(OH), CR5R6CO, COCR5R6; R1 = H, (un)substituted alkyl, alkenyl, alkynyl, acyl, cycloalkyl, alkylcycloalkyl, heterocyclic, etc.; R2-R7 = same or different H, (un)substituted alkyl, alkenyl, alkynyl, aryl, acyl, cycloalkyl, alkylcycloalkyl, aralkyl, heterocyclic, etc.; R8-R9 = same or different H, (un)substituted alkyl, alkenyl, alkynyl, aryl, acyl, cycloalkyl, alkylcycloalkyl, aralkyl, heterocyclic, etc.), is described. Thus, reaction of glycine Me ester hydrochloride with pentanal followed by H3PO3 phosphonylation and sequential treatment with NH2OH gave title compound, HONHCOCH2NHCH(Bu)P(O)(OH)2. The prepared compds. are used as herbicides for selective pre- and post-emergent control of weeds in useful plant cultures.

AN 2001:904191 CAPLUS

DN 136:37770

TI Preparation of organophosphorous hydroxamic acid derivatives as herbicides

IN Jomaa, Hassan

PA Jomaa Pharmaka GmbH, Germany

SO PCT Int. Appl., 86 pp.

CODEN: PIXXD2

DT Patent

LA German

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	PA	CENT	NO.			KIND D		DATE		APPLICATION NO.						DATE					
PI	WO 2001094358					A1 20011213			WO 2001-EP6536						20010608 <						
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04/05/2006

Page 86

VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,

BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG

DE 10127936 A1 20011213 DE 2001-10127936 20010608 <--

PRAI DE 2000-10028367 A 20000608 DE 2000-10029800 A 20000616

OS CASREACT 136:37770; MARPAT 136:37770

IT 380326-74-9P 380330-14-3P 380331-16-8P

RL: AGR (Agricultural use); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of organophosphorous hydroxamic acid derivs. useful as herbicide)

RN 380326-74-9 CAPLUS

CN Acetamide, 2-[[(dimethylphosphinyl)methyl][(phenylamino)carbonyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 380330-14-3 CAPLUS

CN Phosphinic acid, [[[2-(hydroxyamino)-2-oxoethyl][(phenylamino)carbonyl]amino]methyl]methyl- (9CI) (CA INDEX NAME)

RN 380331-16-8 CAPLUS

CN Phosphonic acid, [[[2-(hydroxyamino)-2-oxoethyl][(phenylamino)carbonyl]amino]methyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{O} & \text{CH}_2 - \text{PO}_3\text{H}_2 \\ || & | \\ \text{PhNH-C-N-CH}_2 - \text{C-NH-OH} \\ || & | \\ \text{O} \end{array}$$

RE.CNT 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 8 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN GI

Ι

The invention relates to the preparation and use of title compds. I (A = selected from the group comprised of CR5R6, CR5R6CH(OH), CR5R6CO, COCR5R6; R1 = H, (un)substituted alkyl, alkenyl, alkynyl, acyl, cycloalkyl, alkylcycloalkyl, heterocyclic, etc.; R2-R7 = same or different H, (un)substituted alkyl, alkenyl, alkynyl, aryl, acyl, cycloalkyl, alkylcycloalkyl, aralkyl, heterocyclic, etc.; R8-R9 = same or different H, (un)substituted alkyl, alkenyl, alkynyl, aryl, acyl, cycloalkyl, alkylcycloalkyl, aralkyl, heterocyclic, etc.), is described. Thus, reaction of glycine Me ester hydrochloride with pentanal followed by H3PO3 phosphonylation and sequential treatment with NH2OH gave title compound, HONHCOCH2NHCH(Bu)P(O)(OH)2. Said compds. are used for producing medicaments for the therapeutic and prophylactic treatment of infections in humans and animals caused by viruses, bacteria, fungi and parasites.

AN 2001:903861 CAPLUS

DN 136:37769

TI Preparation of organophosphorous hydroxamic acid derivatives useful for producing medicaments

IN Jomaa, Hassan

PA Jomaa Pharmaka GmbH, Germany

SO PCT Int. Appl., 87 pp.

CODEN: PIXXD2

DT Patent

LA German

FAN.CNT 2

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PATENT NO.
                                           APPLICATION NO.
                        KIND
                                DATE
                                                                   DATE
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PΙ
                                           WO 2001-EP6539
    WO 2001093872
                         A1
                                20011213
                                                                   20010608 <--
        W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN,
            CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM,
            HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS,
            LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO,
            RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ,
            VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
        RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY,
            DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
            BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG
    DE 10127922
                                           DE 2001-10127922
                         A1
                                20011213
                                                                   20010608 <--
PRAI DE 2000-10028367
                                20000608
    CASREACT 136:37769; MARPAT 136:37769
     380326-74-9P 380330-14-3P 380331-16-8P
IT
    RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological
    study); PREP (Preparation); USES (Uses)
        (preparation of organophosphorous hydroxamic acid derivs. useful for
       producing medicaments)
```

RN 380326-74-9 CAPLUS

CN Acetamide, 2-[[(dimethylphosphinyl)methyl][(phenylamino)carbonyl]amino]-Nhydroxy- (9CI) (CA INDEX NAME)

RN 380330-14-3 CAPLUS

CN Phosphinic acid, [[[2-(hydroxyamino)-2-oxoethyl][(phenylamino)carbonyl]amino]methyl]methyl- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} & \text{O} & \\ || & \\ \text{O} & \text{C-NHPh} \\ || & | \\ \text{Me-P-CH}_2 - \text{N-CH}_2 - \text{C-NH-OH} \\ || & || \\ \text{OH} & \text{O} \end{array}$$

RN 380331-16-8 CAPLUS

CN Phosphonic acid, [[[2-(hydroxyamino)-2-oxoethyl][(phenylamino)carbonyl]ami no]methyl]- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{O} & \text{CH}_2 - \text{PO}_3\text{H}_2 \\ || & | \\ \text{PhNH} - \text{C} - \text{N} - \text{CH}_2 - \text{C} - \text{NH} - \text{OH} \\ || & | \\ \text{O} \end{array}$$

## RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 9 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB The corrected version of Scheme 1 is given.

AN 2001:746620 CAPLUS

DN 138:321530

TI Amino acid derived sulfonamide hydroxamates as inhibitors of procollagen C-proteinase: solid-phase synthesis of ornithine analogues. [Erratum to document cited in CA135:344719]

AU Dankwardt, S. M.; Martin, R. L.; Chan, C. S.; Van Wart, H. E.; Walker, K. A. M.; Delaet, N. G.; Robinson, L. A.

CS Inflammatory Diseases Unit, Roche Bioscience, Palo Alto, CA, 94304, USA

SO Bioorganic & Medicinal Chemistry Letters (2001), 11(21), 2891 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

IT 371782-59-1P 371782-60-4P 371782-61-5P 371782-74-0P 371782-76-2P 371782-78-4P 371782-79-5P 371782-81-9P 371782-82-0P 371782-83-1P 371782-84-2P 371782-85-3P 371782-86-4P 371782-87-5P 371782-88-6P

```
371782-89-7P 371782-90-0P 371782-91-1P
371782-93-3P 371782-94-4P 371782-95-5P
371782-96-6P 371782-97-7P 371782-98-8P
371783-10-7P 371783-01-6P
371783-10-7P 371783-11-8P 371783-12-9P
RL: BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
        (solid-phase synthesis of libraries of ornithine analogs sulfonamides as procollagen C-proteinase inhibitors (Erratum))
RN 371782-59-1 CAPLUS
CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[(2-phenylethyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)
```

Absolute stereochemistry.

RN 371782-60-4 CAPLUS
CN Pentanamide, 2-[(1,3-benzoo

Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(3-methylphenyl)methyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Me HO 
$$(CH_2)_3$$
 R N O MeO

RN 371782-61-5 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)](4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[(phenylmethyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

RN 371782-74-0 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)] (4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[(phenylamino)carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-76-2 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)] (4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[[2-(2-thienyl)ethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

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RN 371782-78-4 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-5-[[[(2-chlorophenyl)amino]carbonyl]amino]-N-

hydroxy-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & &$$

RN 371782-79-5 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)] (4-methoxyphenyl) sulfonyl] amino] -N-hydroxy-5-[[[(1R)-1-phenylethyl] amino] carbonyl] amino] -, (2R) - (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-81-9 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)](4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R)-1-(1-naphthalenyl)ethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

RN 371782-82-0 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-5-[[[(3-fluorophenyl)amino]carbonyl]amino]-N-hydroxy-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-83-1 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)](4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[(1R,2S)-2-phenylcyclopropyl]amino]carbonyl]amino]-, (2S)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

RN 371782-84-2 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)](4-methoxyphenyl)sulfonyl]amino]-5-[[(cyclohexylamino)carbonyl]amino]-N-hydroxy-, (2R)- (9CI) (CA INDEX NAME)

RN 371782-85-3 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)][(4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[(2-methylphenyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c}
H & H & O \\
HO & N & O \\
Me & O & O \\
MeO & O & O
\end{array}$$

RN 371782-86-4 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)][(4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R,2S)-2-phenylcyclopropyl]amino]carbonyl]amino]-, (2R)-rel- (9CI) (CA INDEX NAME)

Relative stereochemistry.

$$\begin{array}{c|c} & & & & \\ & &$$

RN 371782-87-5 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)](4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R)-1-(1-

naphthalenyl)ethyl]amino]carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-88-6 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)][(4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-89-7 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)](4-methoxyphenyl)sulfonyl]amino]-5-[[(cyclohexylamino)carbonyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c}
 & H & H & O \\
 & H & N & O \\
 & N & (CH_2)_3 & S & O & O \\
 & MeO & O & O & O \\
 & MeO & O & O & O \\
 & MeO & O & O & O & O \\
 & MeO & O & O & O & O \\
 & MeO & O & O & O & O & O \\
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RN 371782-90-0 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-5-[[[(3-fluorophenyl)amino]carbonyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & \\ & &$$

RN 371782-91-1 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)] (4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[[2-(2-thienyl)ethyl]amino]carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-93-3 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[(phenylamino)carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

RN 371782-94-4 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-5-[[[(2-chlorophenyl)amino]carbonyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\ & & & \\$$

RN 371782-95-5 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

MeO 
$$\stackrel{\text{H}}{\longrightarrow}$$
  $\stackrel{\text{H}}{\longrightarrow}$   $\stackrel{\text{H}}{\longrightarrow}$ 

RN 371782-96-6 CAPLUS

CN Pentanamide, 2-[[(4-chlorophenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

RN 371782-97-7 CAPLUS

CN Pentanamide, 2-[[(2-chlorophenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} C1 & O & H & H & H & H & H & Me \\ \hline & & & & & & & & \\ & & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & & & \\ & & \\ & & & \\ & & & \\ & & \\ & & & \\ & & \\ & & & \\ & \\ & & \\ & \\ & & \\ & \\ & \\ & & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\$$

RN 371782-98-8 CAPLUS

CN Pentanamide, N-hydroxy-5-[[[((1R)-1-phenylethyl]amino]carbonyl]amino]-2[[(4-(2-thienylsulfonyl)phenyl]sulfonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-99-9 CAPLUS

CN Pentanamide, 2-[[(5-chloro-2-thienyl)sulfonyl]amino]-N-hydroxy-5-[[[((1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

$$C1 \xrightarrow{S} \xrightarrow{N} \xrightarrow{R} (CH_2) \xrightarrow{3} \xrightarrow{H} \xrightarrow{N} \xrightarrow{R} \xrightarrow{Me}$$

RN 371783-00-5 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxy-2,6-dimethylphenyl)sulfonyl]amino]-5[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371783-01-6 CAPLUS

CN Pentanamide, 2-[[(2-chloro-4-fluorophenyl)sulfonyl]amino]-N-hydroxy-5[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371783-10-7 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]methylamino]-5-[[(phenylamino)carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

RN 371783-11-8 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]methylamino]-5[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

MeO 
$$\stackrel{H}{\stackrel{N}{\longrightarrow}}$$
 OH  $\stackrel{H}{\stackrel{N}{\longrightarrow}}$   $\stackrel{H}{\stackrel{N}{\longrightarrow}}$   $\stackrel{H}{\stackrel{N}{\longrightarrow}}$   $\stackrel{N}{\stackrel{N}{\longrightarrow}}$   $\stackrel{Me}{\stackrel{N}{\longrightarrow}}$ 

RN 371783-12-9 CAPLUS

CN Pentanamide, 5-[[[(2-chlorophenyl)amino]carbonyl]amino]-N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]methylamino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L5 ANSWER 10 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB A discussion of the solid-phase synthesis of ornithine derived sulfonamide hydroxamic acids is illustrated. A large number of libraries were prepared, and various substituted ornithine derivs. with and without a substituent on the nitrogen of the sulfonamide was investigated. These analogs are shown to be potent, non-peptide inhibitors of procollagen C-proteinase (PCP).

AN 2001:612016 CAPLUS

DN 135:344719

TI Amino acid derived sulfonamide hydroxamates as inhibitors of procollagen

```
C-proteinase: solid-phase synthesis of ornithine analogues
     Dankwardt, S. M.; Martin, R. L.; Chan, C. S.; Van Wart, H. E.; Walker, K.
ΑU
     A. M.; Delaet, N. G.; Robinson, L. A.
     Inflammatory Diseases Unit, Roche Bioscience, Palo Alto, CA, 94304, USA
CS
     Bioorganic & Medicinal Chemistry Letters (2001), 11(16),
SO
     2085-2088
     CODEN: BMCLE8: ISSN: 0960-894X
     Elsevier Science Ltd.
PB
DT
     Journal
LA
     English
     CASREACT 135:344719
os
IT
     371782-59-1P 371782-60-4P 371782-61-5P
     371782-95-5P 371782-96-6P 371782-97-7P
     371782-99-9P 371783-00-5P 371783-01-6P
     371783-10-7P 371783-11-8P 371783-12-9P
     644967-84-0P 644967-95-3P 644971-02-8P
     644973-32-0P 644976-69-2P 644977-47-9P
     644978-64-3P 644978-70-1P 644978-90-5P
     644988-64-7P 644988-67-0P 644988-84-1P
     644988-85-2P 644988-86-3P 644989-37-7P
     644989-55-9P 644990-67-0P
    RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); BIOL (Biological
     study); PREP (Preparation)
        (solid-phase synthesis of libraries of ornithine analogs sulfonamides
        as procollagen C-proteinase inhibitors)
RN
     371782-59-1 CAPLUS
CN
     Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-
     methoxyphenyl) sulfonyl] amino] -N-hydroxy-5-[[[(2-
    phenylethyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

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RN 371782-60-4 CAPLUS
CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-
methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(3-
methylphenyl)methyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)
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RN 371782-61-5 CAPLUS

CN Pentanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-5-[[(phenylmethyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-95-5 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

MeO 
$$\stackrel{\text{O}}{\longrightarrow}$$
  $\stackrel{\text{O}}{\longrightarrow}$   $\stackrel{\text{H}}{\longrightarrow}$   $\stackrel{\text{N}}{\longrightarrow}$   $\stackrel{\text{H}}{\longrightarrow}$   $\stackrel{\text{H}}{\longrightarrow}$ 

RN 371782-96-6 CAPLUS

CN Pentanamide, 2-[[(4-chlorophenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

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RN 371782-97-7 CAPLUS

CN Pentanamide, 2-[[(2-chlorophenyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371782-99-9 CAPLUS

CN Pentanamide, 2-[[(5-chloro-2-thienyl)sulfonyl]amino]-N-hydroxy-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} & & & \\ & & &$$

RN 371783-00-5 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxy-2,6-dimethylphenyl)sulfonyl]amino]-5[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX
NAME)

RN 371783-01-6 CAPLUS

CN Pentanamide, 2-[[(2-chloro-4-fluorophenyl)sulfonyl]amino]-N-hydroxy-5[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371783-10-7 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]methylamino]-5-[[(phenylamino)carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 371783-11-8 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]methylamino]-5[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

MeO 
$$\stackrel{\text{H}}{\longrightarrow}$$
  $\stackrel{\text{N}}{\longrightarrow}$   $\stackrel{\text{N}}{\longrightarrow}$   $\stackrel{\text{H}}{\longrightarrow}$   $\stackrel{\text{H}}{\longrightarrow}$ 

RN 371783-12-9 CAPLUS

CN Pentanamide, 5-[[[(2-chlorophenyl)amino]carbonyl]amino]-N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]methylamino]-, (2R)- (9CI) (CA INDEX NAME)

Page 104

Absolute stereochemistry.

RN 644967-84-0 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[(phenylamino)carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

MeO 
$$\stackrel{\text{N}}{\longrightarrow}$$
  $\stackrel{\text{N}}{\longrightarrow}$   $\stackrel{\text{N}}{\longrightarrow}$ 

RN 644967-95-3 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[[2-(2-thienyl)ethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

RN 644971-02-8 CAPLUS

CN Pentanamide, 5-[[[(2-chlorophenyl)amino]carbonyl]amino]-N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644973-32-0 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[[(1R)-1-(1-naphthalenyl)ethyl]amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644976-69-2 CAPLUS

CN Pentanamide, 5-[[[(3-fluorophenyl)amino]carbonyl]amino]-N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

RN 644977-47-9 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[(2-phenylcyclopropyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644978-64-3 CAPLUS

CN Pentanamide, 5-[[(cyclohexylamino)carbonyl]amino]-N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644978-70-1 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[(2-methylphenyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

RN 644978-90-5 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[(2-phenylcyclopropyl)amino]carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644988-64-7 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[[(1R)-1-(1-naphthalenyl)ethyl]amino]carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644988-67-0 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

RN 644988-84-1 CAPLUS

CN Pentanamide, 5-[[(cyclohexylamino)carbonyl]amino]-N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644988-85-2 CAPLUS

CN Pentanamide, 5-[[[(3-fluorophenyl)amino]carbonyl]amino]-N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644988-86-3 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[[[2-(2-thienyl)ethyl]amino]carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

RN 644989-37-7 CAPLUS

CN Pentanamide, N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-5-[[(phenylamino)carbonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644989-55-9 CAPLUS

CN Pentanamide, 5-[[[(2-chlorophenyl)amino]carbonyl]amino]-N-hydroxy-2-[[(4-methoxyphenyl)sulfonyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 644990-67-0 CAPLUS

CN Pentanamide, N-hydroxy-5-[[[[(1R)-1-phenylethyl]amino]carbonyl]amino]-2[[[4-(phenylsulfonyl)-2-thienyl]sulfonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

## RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 11 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN AB A series of sulfonyl amino acyl hydroxamates incorporating alkyl/arylsulfonyl-N-2-nitrobenzyl-L-alanine was prepared Related compds. were obtained by reaction of N-2-nitrobenzyl-L-Ala with aryl isocyanates, arylsulfonyl isocyanates, or benzoyl isothiocyanate, followed by the conversion of the COOH into the CONHOH moiety. The new compds. were assayed as inhibitors of the Clostridium histolyticum collagenase (ChC), a bacterial protease involved in the degradation of extracellular matrix. Many of the obtained hydroxamates proved to be effective bacterial collagenase inhibitors, the main contributor to activity being the substitution pattern at the sulfonamido moiety. The best ChC inhibitors were those containing pentafluorophenylsulfonyl and 3- and 4-protectedaminophenylsulfonyl P1' groups among others, with affinities in the low nanomolar range. This study also proves that the 2-nitrobenzyl- moiety, similarly to the 4-nitrobenyl one previously investigated is an efficient P2' anchoring moiety for obtaining potent bacterial collagenase inhibitors.

AN 2001:381037 CAPLUS

DN 135:133815

TI Protease Inhibitors: Synthesis of a Series of Bacterial Collagenase Inhibitors of the Sulfonyl Amino Acyl Hydroxamate Type

AU Clare, Brian W.; Scozzafava, Andrea; Supuran, Claudiu T.

CS Department of Chemistry, The University of Western Australia, 6009, Australia

SO Journal of Medicinal Chemistry (2001), 44(13), 2253-2258 CODEN: JMCMAR; ISSN: 0022-2623

PB American Chemical Society

DT Journal

LA English

OS CASREACT 135:133815

IT 351527-70-3P 351527-71-4P 351527-72-5P 351527-73-6P 351527-74-7P 351527-75-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of a series of bacterial collagenase inhibitors of the sulfonyl amino acyl hydroxamate type)

RN 351527-70-3 CAPLUS

CN Propanamide, 2-[[[(4-fluorophenyl)amino]carbonyl][(2-nitrophenyl)methyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

RN 351527-71-4 CAPLUS

CN Propanamide, 2-[[[(3-chlorophenyl)amino]carbonyl][(2-nitrophenyl)methyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 351527-72-5 CAPLUS

CN Propanamide, 2-[[[(4-chlorophenyl)amino]carbonyl][(2-nitrophenyl)methyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 351527-73-6 CAPLUS

CN Propanamide, 2-[[[(2,4-difluorophenyl)amino]carbonyl][(2-

nitrophenyl)methyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 351527-74-7 CAPLUS

CN Propanamide, 2-[[[(3,4-dichlorophenyl)amino]carbonyl][(2-nitrophenyl)methyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 351527-75-8 CAPLUS

CN Propanamide, N-hydroxy-2-[[(1-naphthalenylamino)carbonyl][(2-nitrophenyl)methyl]amino]-, (2S)- (9CI) (CA INDEX NAME)

## RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 12 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN AΒ Amino acid derivs. HONHCOCR1R2NR3-X-Y-Z-CR4R5C.tplbond.CR6 [X = SO2, P(O)R10, where R10 = alkyl, cycloalkyl, aryl, heteroaryl; Y = aryl, heteroaryl, with the proviso that X and Z may not be bonded to adjacent atoms of Y; Z = O, NH, CH2, S; R1 = H, aryl, alkyl, alkenyl, alkynyl; R2 = any group given for R1, aralkyl, heteroaryl, heteroaralkyl, cycloalkyl, cycloheteroalkyl or R1 and R2 may form a ring; R3 = H, alkyl, cycloalkyl, cycloheteroalkyl, aralkyl, heteroaralkyl or R1 and R3 may form a ring; R4, R5 = H, alkyl, CN, C.tplbond.CH; R6 = any group given for R1, heteroaryl, cycloalkyl, cycloheteroalkyl] or pharmaceutically acceptable salts were prepared as inhibitors of TNF- $\alpha$  converting enzyme (TACE). Thus, 2-[(4-but-2-ynyloxybenzenesulfonyl)methylamino]-N-hydroxy-3methylbutyramide was prepared and showed IC50 = 7.4 nM for inhibition of TACE.

AN 2001:314178 CAPLUS

DN 134:326767

TI Preparation of acetylenic  $\alpha$ -amino acid-based sulfonamide hydroxamic acid TACE inhibitors

IN Levin, Jeremy I.; Chen, James M.; Cole, Derek C.; Du, Mila T.; Laakso, Leif M.

PA American Cyanamid Company, USA

SO U.S., 109 pp. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
P.	I US 6225311	B1	20010501	US 2000-492691	20000127 <
	US 2003008849	A1	20030109	US 2000-748912	20001227 <
	US 2003212049	A1	20031113	US 2003-376871	20030227 <
	US 6716833	B2	20040406		
	US 2004033988	A1	20040219	US 2003-377008	20030227
	US 6812227	B2	20041102		
	US 2005113346	A1	20050526	US 2004-977962	20041029
PI	RAI US 1999-155249P	P	19990127		
	US 2000-492691	A3	20000127		
	US 2000-748912	B1	20001227		
	US 2003-377008	A1	20030227		
0	MARPAT 134:326767				

IT 287406-64-8P 287406-68-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

Page 114

(preparation of acetylenic  $\alpha$ -amino acid-based sulfonamide hydroxamic acid TACE inhibitors)

RN 287406-64-8 CAPLUS

CN

Pentanamide, 2-[[[4-(2-butynyloxy)phenyl]sulfonyl]amino]-N-hydroxy-5-[[(phenylamino)carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Me— 
$$C = C$$

RN 287406-68-2 CAPLUS

CN Pentanamide, 2-[[[4-(2-butynyloxy)phenyl]sulfonyl]amino]-N-hydroxy-5-[[(methylphenylamino)carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 72 THERE ARE 72 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 13 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN GI

The title compds. [I; R1 = H, (un) substituted alkyl, cycloalkyl, etc.; R2 = OH, halo, CN, etc.; X = C, N; Q = a divalent radical having 2 or 3 atoms selected from C, N, O, S, CR5, NR5 (wherein R5 = OH, halo, CN, etc.) which together with C\* and N\* form a 5-6 membered (non) aromatic ring] which modulate and/or inhibit the activity of certain protein kinases (biol. data were given), and are useful in treating cancer as well as other disease states associated with unwanted angiogenesis and/or cellular proliferation, such as diabetic retinopathy, neovascular glaucoma, rheumatoid arthritis, and psoriasis, were prepared and formulated. E.g., a multi-step synthesis of diaminothiazole II was given. The compds. I and pharmaceutical compns. containing them are capable of mediating tyrosine kinase signal transduction in order to modulate and/or inhibit unwanted cell proliferation.

AN 2000:881130 CAPLUS

DN 134:42124

TI Preparation of diaminothiazoles for inhibiting protein kinases

IN Chu, Shao Song; Alegria, Larry Andrew; Bender, Steven Lee; Benedict, Suzanne Pritchett; Borchardt, Allen J.; Kania, Robert Steve; Nambu, Mitchell David; Tempczyk-Russell, Anna Maria; Sarshar, Sepehr

PA Agouron Pharmaceuticals, Inc., USA

SO PCT Int. Appl., 397 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT	NO.			KIN	D	DATE			APPL	ICAT	ION	NO.		D	ATE		
					-									_			
WO 200	00751	20		<b>A1</b>		2000	1214	1	WO 2	000-	US15	188		2	0000	602 <	
W:	ΑE,	AL,	AM,	ΑT,	AU,	ΑZ,	BA,	BB,	BG,	BR,	BY,	CA,	CH,	CN,	CR,	CU,	
	CZ,	DE,	DK,	DM,	DZ,	EE,	ES,	FI,	GB,	GD,	GE,	GH,	GM,	HR,	HU,	ID,	
	IL,	IN,	IS,	JP,	ΚE,	KG,	KP,	KR,	KZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	
	ΜA,	MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	
	SI,	SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	UG,	UZ,	VN,	ΥU,	ZA,	ZW,	AM,	
	ΑZ,	BY,	KG,	KZ,	MD,	RU,	ТJ,	TM									
RW	: GH,	GM,	KE,	LS,	MW,	MZ,	SD,	SL,	SZ,	TZ,	ŪĠ,	ZW,	AT,	BE,	CH,	CY,	
	DE,	DK,	ES,	FI,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	
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CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG 20000602 <--CA 2371158 20001214 CA 2000-2371158 AA EP 2000-942660 20000602 <--EP 1181283 Α1 20020227 EP 1181283 B1 20050202 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, R: IE, SI, LT, LV, FI, RO BR 2000011585 Α 20020319 BR 2000-11585 20000602 <--20030114 JP 2001-501601 20000602 <--JP 2003501420 T2 EE 2001-659 20000602 <--EE 200100659 Α 20030217 AU 2000-57254 20000602 AU 778071 **B2** 20041111 AT 2000-942660 20000602 AT 288424 Е 20050215 ES 2234628 **T3** 20050701 ES 2000-942660 20000602 US 2001-783584 20010215 <--US 2002025976 A1 20020228 US 6620828 **B2** 20030916 ZA 2001-8291 20011009 <--ZA 2001008291 Α 20021009 NO 2001005045 Α 20020204 NO 2001-5045 20011017 <--BG 2002-106276 20020103 <--BG 106276 Α 20021031 PRAI US 1999-137810P Ρ 19990604 US 2000-587530 B1 20000602 WO 2000-US15188 20000602 W os MARPAT 134:42124 312767-61-6 312768-38-0 312769-15-6 TΤ RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); THU (Therapeutic use); BIOL (Biological study); USES (Uses)

(preparation of diaminothiazoles for inhibiting protein kinases)

RN 312767-61-6 CAPLUS

Benzamide, N-[3-[4'-amino-2'-[[[[2-(hydroxyamino)-2-CN oxoethyl]amino]carbonyl]amino][2,5'-bithiazol]-4-yl]phenyl]-3-methoxy-(CA INDEX NAME)

$$HO-NH-C-CH_2-NH-C-NH$$

$$NH_2$$

$$NH_2$$

$$OMe$$

$$NH_2$$

RN312768-38-0 CAPLUS

CN Benzamide, N-[5-[4'-amino-2'-[[[[2-(hydroxyamino)-2oxoethyl]amino]carbonyl]amino][2,5'-bithiazol]-4-yl]-2,4-difluorophenyl]-3methoxy- (9CI) (CA INDEX NAME)

RN 312769-15-6 CAPLUS

CN Benzamide, N-[5-[5-[4-amino-2-[[[[2-(hydroxyamino)-2oxoethyl]amino]carbonyl]amino]-5-thiazolyl]-1,2,4-oxadiazol-3-yl]-2,4difluorophenyl]-3-methoxy- (9CI) (CA INDEX NAME)

## RE.CNT 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 14 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN Amino acid derivs. HONHCOCR1R2NR3-X-Y-Z-CR4R5C.tplbond.CR6 [X = SO2, AB P(0)R10, where R10 = alkyl, cycloalkyl, aryl, heteroaryl; Y = aryl, heteroaryl, with the proviso that X and Z may not be bonded to adjacent atoms of Y; Z = O, NH, CH2, S; R1 = H, aryl, alkyl, alkenyl, alkynyl; R2 = any group given for R1, aralkyl, heteroaryl, heteroaralkyl, cycloalkyl, cycloheteroalkyl or R1 and R2 may form a ring; R3 = H, alkyl, cycloalkyl, cycloheteroalkyl, aralkyl, heteroaralkyl or R1 and R3 may form a ring; R4, R5 = H, alkyl, CN, C.tplbond.CH; R6 = any group given for R1, heteroaryl, cycloalkyl, cycloheteroalkyl] or pharmaceutically acceptable salts were prepared as inhibitors of TNF- $\alpha$  converting enzyme (TACE). Thus, 2-[(4-but-2-ynyloxybenzenesulfonyl)methylamino]-N-hydroxy-3methylbutyramide was prepared and showed IC50 = 7.4 nM for inhibition of TACE.

AN 2000:535102 CAPLUS

DN 133:150908

TI Preparation of acetylenic  $\alpha\text{-amino}$  acid-based sulfonamide hydroxamic acid TACE inhibitors

IN Levin, Jeremy Ian; Chen, James Ming; Cole, Derek Cecil

PA American Cyanamid Company, USA

SO PCT Int. Appl., 293 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.							APPLICATION NO.					DATE					
				<del>-</del>			-		<del>-</del>									
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			IN,	IS,	JP,	KΕ,	KG,	ΚP,	KR,	ΚZ,	LC,	LK,	LR,	LS,	LT,	LU,	LV,	MA,
			MD,	MG,	MK,	MN,	MW,	MX,	NO,	NZ,	PL,	PT,	RO,	RU,	SD,	SE,	SG,	SI,
			SK,	SL,	ТJ,	TM,	TR,	TT,	TZ,	UA,	ŪĠ,	UZ,	VN,	YU,	ZA,	ZW,	AM,	AZ,
			BY,	KG,	KZ,	MD,	RU,	ТJ,	TM									
		RW:	GH,	GM,	KE,	LS,	MW,	SD,	SL,	SZ,	TZ,	ŬĠ,	ZW,	ΑT,	BE,	CH,	CY,	DE,
			DK,	ES,	FΙ,	FR,	GB,	GR,	ΙE,	IT,	LU,	MC,	NL,	PT,	SE,	BF,	ВJ,	CF,
			CG,	CI,	CM,	GΑ,	GN,	GW,	ML,	MR,	ΝE,	SN,	TD,	TG				
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	ΕP	1144	368			<b>B1</b>	:	2004	0714									
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PRAI	US 1999-238255	Α	19990127		
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OS MARPAT 133:150908

IT 287406-64-8P 287406-68-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of acetylenic  $\alpha$ -amino acid-based sulfonamide hydroxamic acid TACE inhibitors)

RN 287406-64-8 CAPLUS

CN Pentanamide, 2-[[[4-(2-butynyloxy)phenyl]sulfonyl]amino]-N-hydroxy-5-[[(phenylamino)carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

Me— 
$$C = C$$

RN 287406-68-2 CAPLUS

CN Pentanamide, 2-[[[4-(2-butynyloxy)phenyl]sulfonyl]amino]-N-hydroxy-5-[[(methylphenylamino)carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L5 ANSWER 15 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB N-4-Nitrobenzyl- $\beta$ -alanine was reacted with alkyl/arylsulfonyl halides, followed by conversion of the COOH to the CONHOH group. Structurally related compds. were obtained by reaction of N-4-nitrobenzyl- $\beta$ -alanine with aryl isocyanates, arylsulfonyl

isocyanates or benzoyl isothiocyanate, followed by similar conversion of the COOH into the CONHOH moiety. Another subseries of derivs. was prepared from sulfanily1- or metanily1-4-nitrobenzy1-β-alanine by reaction with arylsulfonyl isocyanates, followed by the introduction of the hydroxamate moiety. The new compds. were assayed as inhibitors of four matrix metalloproteinases (MMPs), MMP-1, MMP-2, MMP-8 and MMP-9, and of the Clostridium histolyticum collagenase (ChC). Some of the prepared hydroxamate derivs. proved to be very effective collagenase/gelatinase inhibitors, depending on the substitution pattern at the sulfonamido moiety. Substitutions leading to the best inhibitors of MMP-1, a short-pocket enzyme, were those involving pentafluorophenylsulfonyl or 3-trifluoromethyl-phenylsulfonyl at P1' (KI of 3-5 nM). For MMP-2, MMP-8 and MMP-9 (deep-pocket enzymes), the best inhibitors were those containing perfluoroalkylsulfonyl- and substituted-arylsulfonyl moieties, such as pentafluorophenylsulfonyl, 3- and 4-protected-aminophenylsulfonyl-, 3- and 4-carboxy-phenylsulfonyl-, arylsulfonylureido- or arylsulfonylureidosulfanilyl-/metanilyl moieties at P1'. Bulkier groups in this position, such as 1- and 2-naphthyl-, substituted-naphthyl or quinoline-8-ylmoieties, among others, led to less effective MMP/ChC inhibitors. The best ChC inhibitors were again those containing pentafluorophenylsulfonyl, 3and 4-protected-aminophenylsulfonyl P1' groups. This study demonstrates that the 4-nitrobenzyl moiety, investigated here for the first time, is an efficient P2' anchoring moiety, whereas the  $\beta$ -alanyl scaffold can successfully replace the  $\alpha$ -amino acyl one, for obtaining potent MMP/ChC inhibitors.

AN 2000:453771 CAPLUS

DN 133:234316

Protease inhibitors. Part 12. Synthesis of potent matrix metalloproteinase and bacterial collagenase inhibitors incorporating sulfonylated N-4-nitrobenzyl- $\beta$ -alanine hydroxamate moieties

AU Scozzafava, A.; Ilies, M. A.; Manole, G.; Supuran, C. T.

CS Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy

SO European Journal of Pharmaceutical Sciences (2000), 11(1), 69-79 CODEN: EPSCED; ISSN: 0928-0987

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

IT 294200-72-9P 294200-73-0P 294200-74-1P 294200-75-2P 294200-76-3P 294200-77-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of potent matrix metalloproteinase and bacterial collagenase inhibitors incorporating sulfonylated nitrobenzylalanine hydroxamate moieties)

RN 294200-72-9 CAPLUS

CN Propanamide, 3-[[[(4-fluorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 294200-73-0 CAPLUS

CN Propanamide, 3-[[[(3-chlorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 294200-74-1 CAPLUS

CN Propanamide, 3-[[[(4-chlorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \mathsf{O_2N} & & & \mathsf{O} \\ & | & \\ \mathsf{CH_2} - \mathsf{CH_2} - \mathsf{C} - \mathsf{NH} - \mathsf{OH} \\ & | & \\ \mathsf{CH_2} - \mathsf{N} - \mathsf{C} - \mathsf{NH} \\ & | & \\ \mathsf{O} & \\ \end{array}$$

RN 294200-75-2 CAPLUS

CN Propanamide, 3-[[(2,4-difluorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 294200-76-3 CAPLUS

CN Propanamide, 3-[[(3,4-dichlorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} \text{CH}_2\text{-}\text{CH}_2\text{-}\text{CH}_2\text{-}\text{C-}\text{NH-}\text{OH} \\ \text{CH}_2\text{-}\text{N-}\text{C-}\text{NH-} \\ \text{O} \end{array}$$

RN 294200-77-4 CAPLUS
CN Propanamide, N-hydroxy-3-[[(1-naphthalenylamino)carbonyl][(4-nitrophenyl)methyl]amino]- (9CI) (CA INDEX NAME)

RE.CNT 46 THERE ARE 46 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 16 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN
AB HOHNCOCHRINRSO2Ar2 [R1 = alkyl, haloalkyl, heteroalkyl, cycloalkyl, aryl, aralkyl, aralkenyl, heteroaryl, heteroaralkyl, aminl, aryl, aralkyl, etc.;
R = CHR2Ar1, CHR2CH:CHAr1; Ar2 = specified (substituted) Ph, naphthyl; R2 = H, alkyl; with provisos], were prepared Thus, N-hydroxy-2(R)-[(3,4-methylenedioxybenzyl)(4-methoxy-2,3,6-trimethylbenzenesulfonyl)amino]-3-methylbutyramide was prepared by solution phase synthesis from BOC-D-Val-OH. Title compds. inhibited procollagen C-proteinase with IC50 0.01-2 μM.

AN 2000:441768 CAPLUS

DN 133:74324

TI Preparation of amino acid sulfonamide hydroxamates as inhibitors of procollagen C-proteinase.

IN Billedeau, Roland Joseph; Broka, Chris Allen; Campbell, Jeffrey Allen; Chen, Jian Jeffrey; Dankwardt, Sharon Marie; Delaet, Nancy; Robinson, Leslie Ann; Walker, Keith Adrian Murray

PA F. Hoffmann-La Roche A.-G., Switz.

SO PCT Int. Appl., 133 pp. CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

PATENT NO. APPLICATION NO. KIND DATE DATE -----\_\_\_\_\_ \_ \_ \_ \_ \_\_\_\_\_ WO 1999-EP9920 20000629 19991214 <--PΙ WO 2000037436 **A1** W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE,

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     MARPAT 133:74324
OS
TΤ
     279255-35-5P 279255-45-7P 279255-50-4P
     279255-53-7P 279255-82-2P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of amino acid sulfonamide hydroxamates as inhibitors of
        procollagen C-proteinase)
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RN 279255-35-5 CAPLUS

CN Propanamide, 2-[(1,3-benzodioxol-5-ylmethyl)](4-methoxyphenyl)sulfonyl]amino]-3-[[[(3-cyanophenyl)amino]carbonyl]amino]-N-hydroxy-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 279255-45-7 CAPLUS

CN Propanamide, 2-[(1,3-benzodioxol-5-ylmethyl)](4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-3-[[[(3-methoxyphenyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 279255-50-4 CAPLUS

CN Propanamide, 2-[(1,3-benzodioxol-5-ylmethyl)[(4-methoxyphenyl)sulfonyl]amino]-3-[[[(4-ethoxyphenyl)amino]carbonyl]amino]-N-hydroxy-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 279255-53-7 CAPLUS

CN Propanamide, 2-[(1,3-benzodioxol-5-ylmethyl)] (4-methoxyphenyl) sulfonyl] amino]-N-hydroxy-3-[[[[4-(methylthio)phenyl]amino]carbonyl]amino]-, (2R)-(9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 279255-82-2 CAPLUS

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CN Propanamide, 2-[(1,3-benzodioxol-5-ylmethyl)][(4-methoxyphenyl)sulfonyl]amino]-N-hydroxy-3-[[[(4-methoxyphenyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 17 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN L5 AB L-alanine hydroxamate derivs. were obtained by reaction of alkyl/arylsulfonyl halides with L-alanine, followed by treatment with benzyl chloride, and conversion of the COOH moiety to the CONHOH group with hydroxylamine in the presence of carbodiimides. Other derivs. were obtained by reaction of N-benzyl-alanine with aryl isocyanates, arylsulfonyl isocyanates or benzoyl isothiocyanate, followed by a similar conversion of the COOH to the CONHOH moiety. The obtained compds. were assayed as inhibitors of Clostridium histolyticum collagenase, ChC (EC 3.4.24.3), a zinc enzyme which degrades triple helical collagen. The hydroxamate derivs. were generally 100-500 times more active than the corresponding carboxylates. In the series of synthesized derivs., substitution patterns leading to the most potent ChC inhibitors were those involving perfluoroalkylsulfonyl- and substituted-arylsulfonyl moieties, such as pentafluorophenylsulfonyl, 3- and 4-protected-aminophenylsulfonyl-, 3- and 4-carboxyphenylsulfonyl-, 3-trifluoromethyl-phenylsulfonyl-, or 1- and 2-naphthylsulfonyl among others. Similarly to the matrix metalloproteinase (MMP) hydroxamate inhibitors, ChC inhibitors of the type reported here must incorporate hydrophobic moieties at the P2' and P3' sites, in order to achieve tight binding to the enzyme.

- AN 2000:368315 CAPLUS
- DN 133:177439
- TI Protease inhibitors: synthesis of L-alanine hydroxamate sulfonylated derivatives as inhibitors of Clostridium histolyticum collagenase
- AU Supuran, Claudiu T.; Briganti, Fabrizio; Mincione, Giovanna; Scozzafava, Andrea
- CS Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica, Florence, I-50121, Italy
- SO Journal of Enzyme Inhibition (2000), 15(2), 111-128 CODEN: ENINEG; ISSN: 8755-5093
- PB Harwood Academic Publishers
- DT Journal
- LA English
- IT 288266-32-0P 288266-33-1P 288266-34-2P 288266-35-3P 288266-36-4P 288266-37-5P RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological

study); PREP (Preparation)

(preparation of L-alanine hydroxamate sulfonylated derivs. as inhibitors of Clostridium histolyticum collagenase)

RN 288266-32-0 CAPLUS

CN Propanamide, 2-[[[(4-fluorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 288266-33-1 CAPLUS

CN Propanamide, 2-[[[(3-chlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 288266-34-2 CAPLUS

CN Propanamide, 2-[[[(4-chlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 288266-35-3 CAPLUS

CN Propanamide, 2-[[[(2,4-difluorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 288266-36-4 CAPLUS

CN Propanamide, 2-[[[(3,4-dichlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 288266-37-5 CAPLUS

CN Propanamide, N-hydroxy-2-[[(1-naphthalenylamino)carbonyl](phenylmethyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

## RE.CNT 53 THERE ARE 53 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 18 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB Reaction of alkyl/arylsulfonyl halides with glycine afforded a series of derivs. which were first N-benzylated by treatment with benzyl chloride, and then converted to the corresponding hydroxamic acids with hydroxylamine in the presence of carbodiimide derivs. Other derivs. were obtained by reaction of N-benzyl-glycine with aryl isocyanates, arylsulfonyl isocyanates or benzoyl isothiocyanate, followed by conversion of their COOH group into the CONHOH moiety, as mentioned above. The 90 new compds. reported here were assayed as inhibitors of the Clostridium histolyticum collagenase (EC 3.4.24.3), a zinc enzyme which degrades triple helical regions of native collagen. The prepared hydroxamate derivs. were generally 100-500 times more active than the corresponding

carboxylates. In the series of synthesized hydroxamates, substitution patterns leading to the best inhibitors were those involving perfluoroalkylsulfonyl- and substituted-arylsulfonyl moieties, such as pentafluorophenylsulfonyl, 3- and 4-carboxyphenylsulfonyl-, 3-trifluoromethyl-phenylsulfonyl or 1- and 2-naphthyl among others. Thus, it seems that similarly to the matrix metalloproteinase (MMP) hydroxamate inhibitors, Clostridium histolyticum collagenase inhibitors should incorporate hydrophobic moieties at the P1' and P2' sites, whereas the  $\alpha$ -carbon substituent may be a small and compact moiety (such as H, for the Gly derivs. reported here). Such compds. might lead to the design of collagenase inhibitor-based drugs useful as anti-cancer, anti-arthritis or anti-bacterial agents for the treatment of corneal keratitis.

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AN 2000:261412 CAPLUS

DN 133:53160

TI Protease inhibitors - part 5. Alkyl/arylsulfonyl- and arylsulfonylureido-/arylureido- glycine hydroxamate inhibitors of Clostridium histolyticum collagenase

AU Scozzafava, Andrea; Supuran, Claudiu T.

CS Laboratorio di Chimica Inorganica e Bioinorganica, Universita degli Studi, Florence, I-50121, Italy

SO European Journal of Medicinal Chemistry (2000), 35(3), 299-307 CODEN: EJMCA5; ISSN: 0223-5234

PB Editions Scientifiques et Medicales Elsevier

DT Journal

LA English

IT 276696-04-9P 276696-05-0P 276696-06-1P 276696-07-2P 276696-08-3P 276696-09-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(alkyl/arylsulfonyl- and arylsulfonylureido-/arylureido- glycine hydroxamate inhibitors of Clostridium histolyticum collagenase)

RN 276696-04-9 CAPLUS

CN Acetamide, 2-[[[(4-fluorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 276696-05-0 CAPLUS

CN Acetamide, 2-[[[(3-chlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 276696-06-1 CAPLUS

CN Acetamide, 2-[[(4-chlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-

hydroxy- (9CI) (CA INDEX NAME)

RN 276696-07-2 CAPLUS

CN Acetamide, 2-[[[(2,4-difluorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 276696-08-3 CAPLUS

CN Acetamide, 2-[[[(3,4-dichlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 276696-09-4 CAPLUS

CN Acetamide, N-hydroxy-2-[[(1-naphthalenylamino)carbonyl](phenylmethyl)amino ]- (9CI) (CA INDEX NAME)

RE.CNT 51 THERE ARE 51 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 19 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB A series of compds. was prepared by reaction of alkyl/arylsulfonyl halides

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with N-4-nitrobenzylglycine, followed by conversion of the COOH to the CONHOH group, with hydroxylamine in the presence of carbodiimides. Other structurally related compds. were obtained by reaction of N-4-nitrobenzylglycine with aryl isocyanates, arylsulfonyl isocyanates, or benzoyl isothiocyanate, followed by the similar conversion of the COOH into the CONHOH moiety. Another subseries of derivs. was prepared from sulfanilyl- or metanilyl-4-nitrobenzylqlycine by reaction with arylsulfonyl isocyanates, followed by conversion of the COOH to the hydroxamate moiety. The new compds. were assayed as inhibitors of four matrix metalloproteinases (MMPs), MMP-1, MMP-2, MMP-8, and MMP-9, and of the Clostridium histolyticum collagenase (ChC). Some of the prepared hydroxamate derivs. proved to be very effective collagenase/gelatinase inhibitors, depending on the substitution pattern at the sulfonamido moiety. Substitutions leading to best inhibitors of MMP-1, a short pocket enzyme, were those involving pentafluorophenylsulfonyl or 3-trifluoromethylphenylsulfonyl moieties at P1' (KI's of 3-5 nM). For MMP-2, MMP-8, and MMP-9 (deep-pocket enzymes), best inhibitors were especially those containing long perfluoroalkylsulfonyl and substituted-arylsulfonyl moieties, such as pentafluorophenylsulfonyl, 3- and 4-protectedaminophenylsulfonyl, 3- and 4-carboxyphenylsulfonyl, arylsulfonylureido, or arylsulfonylureidosulfanilyl/metanilyl moieties, at P1'. Bulkier groups in this position, such as 1- and 2-naphthyl, substituted-naphthyl, or quinolin-8-yl moieties among others, led to less effective MMP/ChC inhibitors. Best ChC inhibitors were again those containing pentafluorophenylsulfonyl or 3- and 4-protected-aminophenylsulfonyl P1' anchoring groups, suggesting that this protease is also a short-pocket wider-neck one (more similar to MMP-1). This study also proves that the 4-nitrobenzyl moiety is an efficient P2' anchoring moiety and that sulfonylureido, ureido, or carboxythioureido substitutions at P1' are also tolerated for obtaining potent sulfonylated amino acid hydroxamate-like MMP/ChC inhibitors.

- AN 2000:222313 CAPLUS
- DN 133:26475
- TI Protease Inhibitors: Synthesis of Potent Bacterial Collagenase and Matrix Metalloproteinase Inhibitors Incorporating N-4-Nitrobenzylsulfonylglycine Hydroxamate Moieties
- AU Scozzafava, Andrea; Supuran, Claudiu T.
- CS Laboratorio di Chimica Inorganica e Bioinorganica, Universita degli Studi, Florence, I-50121, Italy
- SO Journal of Medicinal Chemistry (2000), 43(9), 1858-1865 CODEN: JMCMAR; ISSN: 0022-2623
- PB American Chemical Society
- DT Journal
- LA English
- IT 273732-44-8 273732-45-9 273732-46-0 273732-47-1 273732-48-2

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(synthesis of potent bacterial collagenase and matrix metalloproteinase inhibitors incorporating nitrobenzylsulfonylglycine hydroxamate moieties)

- RN 273732-44-8 CAPLUS
- CN Acetamide, 2-[[[(3-chlorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c} O \\ CH_2-C-NH-OH \\ CH_2-N-C-NH \\ O \end{array}$$

RN 273732-45-9 CAPLUS

CN Acetamide, 2-[[[(4-chlorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O_2N & & O\\ CH_2-C-NH-OH\\ CH_2-N-C-NH\\ O & C1 \end{array}$$

RN 273732-46-0 CAPLUS

CN Acetamide, 2-[[[(2,4-difluorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 273732-47-1 CAPLUS

CN Acetamide, 2-[[[(3,4-dichlorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O_2N & O\\ CH_2-C-NH-OH\\ CH_2-N-C-NH\\ O\\ C1\\ \end{array}$$

RN 273732-48-2 CAPLUS

CN Acetamide, N-hydroxy-2-[[(1-naphthalenylamino)carbonyl][(4-nitrophenyl)methyl]amino]- (9CI) (CA INDEX NAME)

04/05/2006

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IT 273732-43-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis of potent bacterial collagenase and matrix metalloproteinase inhibitors incorporating nitrobenzylsulfonylglycine hydroxamate moieties)

RN 273732-43-7 CAPLUS

CN Acetamide, 2-[[[(4-fluorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RE.CNT 48 THERE ARE 48 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 20 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB A series of hydroxamates was obtained by the reaction of N-(4-nitrobenzyl)-L-alanine with alkyl/arylsulfonyl halides, followed by conversion of the CO2H group into CONHOH (no data). Structurally related compds. were prepared similarly by using arylsulfonyl isocyanates, aryl isocyanates or arylsulfenyl halides instead of the sulfonyl halides (no data). Many of the new compds. showed nanomolar affinity for the bacterial collagenase isolated from the pathogen Clostridium histolyticum.

AN 2000:208763 CAPLUS

DN 132:305057

TI Protease inhibitors: synthesis of Clostridium histolyticum collagenase inhibitors incorporating sulfonyl-L-alanine hydroxamate moieties

AU Scozzafava, Andrea; Supuran, Claudiu T.

CS Universita degli Studi, Laboratorio di Chimica Inorganica e Bioinorganica,

04/05/2006 Page 132

Florence, 50121, Italy

so Bioorganic & Medicinal Chemistry Letters (2000), 10(5), 499-502 CODEN: BMCLE8; ISSN: 0960-894X

PB Elsevier Science Ltd.

DT Journal

LA English

IT 265668-44-8 265668-45-9 265668-46-0

265668-47-1 265668-48-2 265668-49-3

RL: BAC (Biological activity or effector, except adverse); BSU (Biological

study, unclassified); BIOL (Biological study)

(Clostridium collagenase inhibitors incorporating sulfonylalanine

hydroxamate)

RN 265668-44-8 CAPLUS

Propanamide, 2-[[[(4-fluorophenyl)amino]carbonyl][(4-CN

nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

265668-45-9 CAPLUS RN

CNPropanamide, 2-[[[(3-chlorophenyl)amino]carbonyl][(4nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

265668-46-0 CAPLUS RN

Propanamide, 2-[[[(4-chlorophenyl)amino]carbonyl][(4-CN nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 265668-47-1 CAPLUS

CN Propanamide, 2-[[[(2,4-difluorophenyl)amino]carbonyl][(4nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 265668-48-2 CAPLUS

CN Propanamide, 2-[[[(3,4-difluorophenyl)amino]carbonyl][(4-nitrophenyl)methyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RN 265668-49-3 CAPLUS

CN Propanamide, N-hydroxy-2-[[(1-naphthalenylamino)carbonyl][(4-nitrophenyl)methyl]amino]- (9CI) (CA INDEX NAME)

RE.CNT 23 THERE ARE 23 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 21 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB A series of hydroxamates was prepared by reaction of alkyl/arylsulfonyl halides with N-2-chlorobenzyl-L-alanine, followed by conversion of the CO2H moiety to the CONHOH group, with NH2OH in the presence of carbodiimides. Other structurally related compds. were obtained by

reaction of N-2-chlorobenzyl-L-alanine with aryl isocyanates, arylsulfonyl isocyanates, or benzoyl isothiocyanate, followed by the similar conversion of the CO2H into the CONHOH moiety. The new compds. were assayed as inhibitors of the Clostridium histolyticum collagenase, ChC (EC 3.4.24.3), a bacterial Zn metallo-peptidase which degrades triple helical collagen as well as a large number of synthetic peptides. The prepared hydroxamates proved to be 100-500+ more active collagenase inhibitors than the corresponding carboxylates. Substitution patterns leading to best ChC inhibitors (both for carboxylates as well as for the hydroxamates) were those involving perfluoroalkylsulfonyl- and substituted arylsulfonyl moieties, such as C6F5SO2, protected 3- and 4-aminophenylsulfonyl-, 3-/4-HO2CC6H4SO2, 3-F3CC6H4SO2, as well as 1- and 2-naphthyl-, quinolin-8-yl- or substituted-arylsulfonylamido-carboxyl moieties among others. Similarly to the matrix metalloproteinase (MMP) hydroxamate inhibitors, ChC inhibitors of the type reported here must incorporate hydrophobic moieties at the P2' and P3' sites, to achieve tight binding to the enzyme. This study also proves that the 2-chlorobenzyl moiety, is an efficient P2' anchoring moiety for obtaining potent ChC inhibitors.

- 2000:157028 CAPLUS AN
- DN 132:344757
- Protease inhibitors. Part 8. Synthesis of potent Clostridium histolyticum ΤI collagenase inhibitors incorporating sulfonylated L-alanine hydroxamate moieties
- ΑU Scozzafava, A.; Supuran, C. T.
- Laboratorio di Chimica Inorganica e Bioinorganica, Universita degli Studi, CS Florence, I-50121, Italy
- Bioorganic & Medicinal Chemistry (2000), 8(3), 637-645 SO CODEN: BMECEP; ISSN: 0968-0896
- PB Elsevier Science Ltd.
- DТ Journal
- LΑ English
- 269747-10-6P 269747-11-7P 269747-12-8P TT 269747-13-9P 269747-14-0P 269747-15-1P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(preparation of Clostridium collagenase inhibitors incorporating sulfonylated alanine hydroxamate)

- ВИ 269747-10-6 CAPLUS
- Propanamide, 2-[[(2-chlorophenyl)methyl][[(4-fluorophenyl)amino]carbonyl]a CN mino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

269747-11-7 CAPLUS RN

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CN Propanamide, 2-[[[(3-chlorophenyl)amino]carbonyl][(2-chlorophenyl)methyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 269747-12-8 CAPLUS

CN Propanamide, 2-[[[(4-chlorophenyl)amino]carbonyl][(2-chlorophenyl)methyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 269747-13-9 CAPLUS

CN Propanamide, 2-[[(2-chlorophenyl)methyl][[(2,4-difluorophenyl)amino]carbonyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 269747-14-0 CAPLUS

Absolute stereochemistry.

RN 269747-15-1 CAPLUS

CN Propanamide, 2-[[(2-chlorophenyl)methyl][(1-naphthalenylamino)carbonyl]amino]-N-hydroxy-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

## RE.CNT 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 22 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN L5 Sulfonylated 1-valine hydroxamate derivs. were obtained by reaction of AB alkyl/arylsulfonyl halides with the title amino acid, followed by treatment with benzyl chloride, and conversion of the COOH moiety to the CONHOH group. Other derivs. were obtained by reaction of N-benzyl-l-valine with arylisocyanates, arylsulfonylisocyanates or benzoylisothiocyanate, followed by the similar conversion of the COOH into the CONHOH moiety, with hydroxylamine in the presence of carbodiimides. The obtained compds. were assayed as inhibitors of the Clostridium histolyticum collagenase, ChC (EC 3.4.24.3), a zinc enzyme which degrades triple helical collagen. The hydroxamate derivs. were generally 100-500 times more active than the corresponding carboxylates. In the series of synthesized derivs., substitution patterns leading to best ChC inhibitors were those involving perfluoroalkylsulfonyl- and substituted-arylsulfonyl moieties, such as pentafluorophenylsulfonyl; 3- and 4-protectedaminophenylsulfonyl-; 3- and 4-carboxyphenylsulfonyl-; 3-trifluoromethylphenylsulfonyl; or 1- and 2-naphthyl among others. Similarly to the matrix metalloproteinase hydroxamate inhibitors, ChC inhibitors of the type reported here must incorporate hydrophobic moieties at the P2' and P3' subsites, in order to achieve tight binding to the enzyme. Such compds. might lead to drugs useful in the treatment of corneal bacterial keratitis.

AN 2000:142412 CAPLUS

DN 132:342787

TI Protease inhibitors. Part 7 Inhibition of Clostridium histolyticum collagenase with sulfonylated derivatives of 1-valine hydroxamate

AU Supuran, C. T.; Scozzafava, A.

CS Laboratorio di Chimica Inorganica e Bioinorganica, Universita degli Studi, Florence, I-50121, Italy

SO European Journal of Pharmaceutical Sciences (2000), 10(1), 67-76 CODEN: EPSCED; ISSN: 0928-0987

PB Elsevier Science Ireland Ltd.

DT Journal

LA English

IT 270072-84-9P 270072-85-0P 270072-86-1P 270072-87-2P 270072-88-3P 270072-89-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); RCT (Reactant); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent) (preparation of sulfonylated valine hydroxamates as inhibitors of Clostridium histolyticum collagenase)

RN 270072-84-9 CAPLUS

CN Butanamide, 2-[[[(4-fluorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-3-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 270072-85-0 CAPLUS

CN Butanamide, 2-[[[(3-chlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-3-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 270072-86-1 CAPLUS

CN Butanamide, 2-[[[(4-chlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-3-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 270072-87-2 CAPLUS

CN Butanamide, 2-[[[(2,4-difluorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-3-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 270072-88-3 CAPLUS

CN Butanamide, 2-[[[(3,4-dichlorophenyl)amino]carbonyl](phenylmethyl)amino]-N-hydroxy-3-methyl-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 270072-89-4 CAPLUS

CN Butanamide, N-hydroxy-3-methyl-2-[[(1-naphthalenylamino)carbonyl](phenylme thyl)amino]-, (2S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 23 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN GI

$$\begin{array}{c|c} & & & & \\ & & & \\ & & & \\ &$$

AB Prepared are α-[N'-(mercaptoalkyl)ureido]alkanamide compds. having a urea structure as the basic structure and carrying sulfur and amide bonds in side chains. The above compds. are represented by general formula R1S-A1(R7)-NR2CONR3-A2(R4)CONR5R6 [wherein R1 represents H, (un)substituted lower alkyl or aromatic group, RA-CO-, RC-S- or a group of formula S-A1(R7)-NR2CONR3-A2(R4)CONR5R6; R2, R3 and R4 represent each H, (un)substituted lower alkyl or alkenyl, cycloalkyl, cycloalkenyl or (un)substituted aromatic group; R5 and R6 represent each H, (un)substituted lower alkyl or alkenyl, cycloalkyl, cycloalkenyl or (un)substituted aromatic group, or R5 and R6 may form together (un)substituted nonarom. heterocycle; R7 represents H, (un)substituted lower alkyl, cycloalkyl, hydroxy, mercapto, Ph, RB-O-, RC-S-, RD-COS-, RE-OCO-, RF-N(RG)- or -CONHOH; A1 and A2 represent each an alkylene; RA represents lower (halo)alkyl, aromatic group, lower alkoxy, aromatic-lower alkoxy, RF, or NRG;

represents lower alkyl or aromatic group; RC represents H, lower alkyl, aromatic

group; RD represents lower alkyl or aromatic group; RE represents H, lower alkyl, or aromatic group, RF and RG represent H, lower alkyl, cycloalkyl, or aromatic group]. It has been found out that these compds. have pharmacol. effects, in particular, a tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ) production inhibitory effect. They are useful as remedies for autoimmune diseases and as antirheumatics. Thus, (2S)-2-[3-[2-(acetylthio)ethyl]-3-(2-cyclohexylethyl)ureido]propionic acid (preparation given) was condensed with N-methylpiperazine using 1-hydroxybenzotriazole, 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride, and N-methylmorpholine in CH2Cl2 at room temperature overnight to give the title compound (I; X = NMe) in 78% yield. I (X = NMe) and I (X = 0) at 50 mg/kg p.o. inhibited the Salmonella lipopolysaccharide-induced production of TNF- $\alpha$  in rats by 84.6 and 93.5%, resp.

AN 1999:640828 CAPLUS

DN 131:272178

RB

TI Preparation of N-(mercaptoalkyl)urea derivatives of amino acids as inhibitors of TNF- $\alpha$  production

IN Mita, Shiro; Horiuchi, Masato; Ban, Masakazu; Suhara, Hiroshi

PA Santen Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 324 pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO. KIND DATE APPLICATION NO. DATE ------------------------PΙ WO 9950238 **A1** 19991007 WO 1999-JP1554 19990325 <--W: CA, CN, KR, NO, US

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RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL,
             PT, SE
                                              JP 1999-78346
                                                                      19990323 <--
     JP 2000044533
                           A2
                                 20000215
     JP 3603177
                           B2
                                 20041222
                                                                      19990325 <--
     CA 2325741
                           AA
                                 19991007
                                              CA 1999-2325741
     EP 1072591
                           A1
                                 20010131
                                              EP 1999-910724
                                                                      19990325 <--
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, FI
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     US 6492370
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                                              US 2000-623779
     US 2002198376
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     US 6730784
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PRAI JP 1998-79154
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     WO 1999-JP1554
                                 20000908
     US 2000-623779
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     MARPAT 131:272178
IT
     245486-61-7P 245486-66-2P 245486-69-5P
     RL: BAC (Biological activity or effector, except adverse); BSU (Biological
     study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);
     BIOL (Biological study); PREP (Preparation); USES (Uses)
        (preparation of N-(mercaptoalkyl) urea derivs. of amino acids as inhibitors
        of TNF-\alpha production, antirheumatics, and remedies for autoimmune
        disease)
RN
     245486-61-7 CAPLUS
     Benzenepropanamide, \alpha-[[[[1-[(hydroxyamino)carbonyl]-3-
CN
     (phenylthio) propyl] (3-methylbutyl) amino] carbonyl] amino] -N-methyl-,
     (\alpha S) - (9CI) (CA INDEX NAME)
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Absolute stereochemistry.

RN 245486-66-2 CAPLUS

Absolute stereochemistry.

RN 245486-69-5 CAPLUS

CN [1,1'-Biphenyl]-4-propanamide, N-butyl- $\alpha$ -[[[[3-(hydroxyamino)-3-oxo-1-[(phenylthio)methyl]propyl](3-methylbutyl)amino]carbonyl]amino]-, ( $\alpha$ S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RE.CNT 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 24 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN GI

HO 
$$\mathbb{R}^3$$
  $\mathbb{R}^4$   $\mathbb{R}^4$ 

The invention provides title compds. I [A = SO2Ar, COAr, CONHAr, P(O)(R)Ar; Ar = (un)substituted mono- or bicyclic aryl or heteroaryl; R1 = H, alkyl; R2-R4 = independently H, (un)substituted alkyl, aryl, heteroaryl, arylalkyl, alkoxyalkyl, heterocyclyl, heterocyclylalkyl; R1R2, R2R3, R3R4 may form rings; X = bond, C1-6 alkyl, CO, O, N, NZ, S, S(O), SO2; Y = bond, C1-6 alkyl, CO, CO2, CONH, O, N, NZ, S, S(O), SO2; Z = H,

Page 143 04/05/2006

COR4, CO2R4, CONHR4, R4, C(S)R4, CSNHR4, SO2R4] or an optical isomer, diastereomer or enantiomer thereof, or a pharmaceutically-acceptable salt, or biohydrolyzable amide, ester, or imide thereof are useful as inhibitors of metalloproteases. Also disclosed are pharmaceutical compns. and methods of treating diseases, disorders and conditions characterized by metalloprotease activity using these compds. or the pharmaceutical compns. containing them. Thus, S-methylation of D-penicillamine (D-Pen) with Me2SO4 and Ba(OH)2, followed by N-sulfonylation with 4-MeOC6H4SO2Cl gave 73% adduct 4-MeOC6H4SO2-D-Pen(Me)-OH (II). Acid chlorination of II with oxalyl chloride, followed by amidation with hydroxylamine gave desired N-hydroxyamide III in 65% yield. 1999:113626 CAPLUS

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AN
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DN 130:168652

- Preparation of substituted amino acid N-hydroxyamides as metalloprotease ΤI inhibitors
- IN Almstead, Neil Gregory; Bookland, Roger Gunnard; Taiwo, Yetunde Olabisi; Bradley, Rimma Sandler; Bush, Rodney Dean; De, Biswanath; Natchus, Michael George; Pikul, Stanislaw
- PA The Procter & Gamble Company, USA
- so PCT Int. Appl., 63 pp.

CODEN: PIXXD2 DT Patent

English LA

FAN.CNT 1

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KIND
                                         APPLICATION NO.
    PATENT NO.
                              DATE
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                                         WO 1998-IB1139
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    WO 9906340
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PRAI US 1997-54348P
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    WO 1998-IB1139
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                              19980727
os
    MARPAT 130:168652
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TΤ 220389-90-2P 220389-97-9P 220390-07-8P 220390-21-6P 220390-34-1P 220390-41-0P

220390-51-2P 220390-58-9P 220390-65-8P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of substituted amino acid N-hydroxyamides as metalloprotease inhibitors)

RN 220389-90-2 CAPLUS

CN Acetamide, N-hydroxy-2-[[[(4-methylphenyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

RN 220389-97-9 CAPLUS

CN Propanamide, N-hydroxy-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$\begin{array}{c|c} H & Me & O \\ \hline H & R & N \\ \hline N & H & H \end{array}$$

RN 220390-07-8 CAPLUS

CN Butanamide, N-hydroxy-3-methyl-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220390-21-6 CAPLUS

CN Benzenepropanamide, N-hydroxy- $\alpha$ -[[[(4-methylphenyl)amino]carbonyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220390-34-1 CAPLUS

CN Butanamide, N-hydroxy-2-[[[(4-methylphenyl)amino]carbonyl]amino]-4-(methylthio)-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220390-41-0 CAPLUS

CN Hexanamide, 6-amino-N-hydroxy-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220390-51-2 CAPLUS

CN 3-Pyridinepropanamide, N-hydroxy- $\alpha$ -[[[(4-methylphenyl)amino]carbonyl]amino]-, ( $\alpha$ R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220390-58-9 CAPLUS

CN Butanediamide, N1-hydroxy-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 220390-65-8 CAPLUS

CN Butanamide, N,3-dihydroxy-2-[[[(4-methylphenyl)amino]carbonyl]amino]-, (2R,3S)- (9CI) (CA INDEX NAME)

04/05/2006 Page 146

Absolute stereochemistry.

L5. ANSWER 25 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN GI

AB Title compds. [I; Y = CO, SO2; R1 = alkyl, alkenyl, cycloalkyl, cycloalkylalkyl, aryl, aralkyl; R2 = alkyl, haloalkyl, aralkyl, aralkenyl, aryl, alkoxy, alkoxycarbonyl, etc.; R3 = H, (substituted) alkyl, alkenyl, alkynyl, cycloalkyl, cycloalkylalkyl, aralkyl, aralkenyl, aryl, heterocyclyl; R2R3 = 5-7 membered cyclic amide, imide, sulfonamide, or urethane; R4 = alkyl, alkenyl, cycloalkylalkyl, ArX, HetX, etc.; Ar = aryl; Het = heteroaryl; X = spacer], were prepared Thus, (E)-2(R)-[1(S)-(hydroxycarbamoyl)-4-phenyl-3-butenyl]-2'-(methanesulfonyl)-4-methyl-2'-phenylvalerohydrazide (multistep preparation given) inhibited TNFα and TGFα release with IC50 = 437 nM and 210 nM, resp.

AN 1999:42740 CAPLUS

DN 130:110060

TI Preparation of hydroxycarbamoylalkylcarboxylic acid hydrazides as inhibitors of tumor necrosis factor and transforming growth factor release.

IN Broadhurst, Michael John; Johnson, William Henry; Walter, Daryl Simon

PA F. Hoffmann-La Roche A.-G., Switz.

SO Ger. Offen., 64 pp.

CODEN: GWXXBX

DT Patent

LA German

FAN.CNT 1

		***																	
	PAT	ENT .	NO.			KIN	)	DATE		i	APPL	ICAT:	ION I	NO.		D	ATE		
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PI	DE	1982	9229			<b>A1</b>		1999	0107	1	DE 1:	998-	1982	9229		1:	9980	530 <-	
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                                 19990125
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                                                                      19980618 <--
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             IE, SI, LT, LV, FI, RO
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     WO 1998-EP3683
                                 19980618
os
     MARPAT 130:110060
IT
     219612-93-8P
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RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of hydroxycarbamoylalkylcarboxylic acid hydrazides as inhibitors of tumor necrosis factor and transforming growth factor release)

RN 219612-93-8 CAPLUS

CN Pentanoic acid, 2-[(1R)-2-(hydroxyamino)-2-oxo-1-[[[(phenylamino)carbonyl]amino]methyl]ethyl]-4-methyl-, 2-(methylsulfonyl)-2-phenylhydrazide, (2R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L5 ANSWER 26 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB The title materials contain organic Ag salts, reducing agents, ≥1 compds. selected from R2NA1NA2G1m1R1 [R2 = aliphatic, aromatic, or heterocyclic group; R1 = H or blocking group; G1 = CO, COCO, CS, SO2, SO, POR3 (R3 = H

or blocking group), iminomethylene; A1 = A2 = H or 1 of A1 and A2 is H and the other is alkylsulfonyl, arylsulfonyl or (substituted) acyl group; m1 = 0 or 1, when m1 = 0 , R1 = aliphatic, aromatic or heterocyclic group], and ≥1 compds. selected from R23CONR24OX2 and R33G3n3NR34OX3 [R23 = hydrazino, alkylamino, sulfonylamino, ureido, oxycarbonylamino, alkynyl (these group may be substituted), unsubstituted amino; R24, R34 = H, alkyl, aryl, heterocycle; X2, X3 = H, alkyl, acyl, (oxy)carbamoyl; R33 = aliphatic aromatic or heterocyclic group, group which links via N or O atom; G3 = COCO, CS, SO2, SO, POR35 (R35 is the same as defined above for R33), iminomethylene; n3 = 0 or 1, when n3 = 0, R33 = heterocyclic group; R23-R24 or R33-R34 may form 5- or 7-membered ring]. The materials show high sensitivity (Dmax) associated with reduction of black spot formation.

AN 1998:351900 CAPLUS

DN 129:101969

TI Thermographic materials for printing platemaking

IN Hirano, Shigeo; Kubo, Toshiaki

PA Fuji Photo Film Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 66 pp. CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
 JP 10142729 JP 1996-308796	A2	19980529 19961105	JP 1996-308796	19961105 <

IT 209545-39-1

RL: MOA (Modifier or additive use); USES (Uses)

(thermog. material using organic silver salt and hydrazine derivative for printing platemaking)

RN 209545-39-1 CAPLUS

CN Imidodicarbonic diamide, N-hydroxy-N'-phenyl- (9CI) (CA INDEX NAME)

L5 ANSWER 27 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AΒ Hybrid polar compds. (HPCs) have been synthesized that induce terminal differentiation and/or apoptosis in various transformed cells. We have previously reported on the development of the second-generation HPCs suberoylanilide hydroxamic acid (SAHA) and m-carboxycinnamic acid bishydroxamide (CBHA) that are 2,000-fold more potent inducers on a molar basis than the prototype HPC hexamethylene bisacetamide (HMBA). Herein we report that CBHA and SAHA inhibit histone deacetylase 1 (HDAC1) and histone deacetylase 3 (HDAC3) activity in vitro. Treatment of cells in culture with SAHA results in a marked hyperacetylation of histone H4, but culture with HMBA does not. Murine erythroleukemia cells developed for resistance to SAHA are cross-resistant to trichostatin A, a known deacetylase inhibitor and differentiation inducer, but are not cross-resistant to HMBA. These studies show that the second-generation HPCs, unlike HMBA, are potent inhibitors of HDAC activity. In this sense, HMBA and the second-generation HPCs appear to induce differentiation by different pathways.

AN 1998:209144 CAPLUS

DN 128:316984

TI A class of hybrid polar inducers of transformed cell differentiation

inhibits histone deacetylases

- AU Richon, Vicotria M.; Emiliani, Stephane; Verdin, Eric; Webb, Yael; Breslow, Ronald; Rifkind, Richard A.; Marks, Paul A.
- CS Cell Biology Program, Memorial Sloan-Kettering Cancer Center, New York, NY, 10021, USA
- SO Proceedings of the National Academy of Sciences of the United States of America (1998), 95(6), 3003-3007
  CODEN: PNASA6; ISSN: 0027-8424
- PB National Academy of Sciences
- DT Journal
- LA English
- IT 174664-68-7

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)

(hybrid polar inducers of transformed cell differentiation inhibits histone deacetylases)

- RN 174664-68-7 CAPLUS
- CN Hexanamide, 6-[[[(3-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

RE.CNT 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 28 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN GI

- \* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY AVAILABLE VIA OFFLINE PRINT \*
- Title compds. I (R1 = H, hydroxy-protective group; R2 = H, acyl, R3 = H, alkyl; R2R3N = phthalimido; R4 = heterocyclic (lower) alkyl; R5 = alkoxy, alkylamino), or pharmaceutically acceptable salts thereof, which is useful as a medicament for inhibition of tumor necrosis factor  $\alpha$  (TNF $\alpha$ ) and/or matrix metalloproteinases (MMPs). Thus, reaction of 5.18 g phthalimidosuccinamide II (R = OH) trifluoroacetate (preparation given) with 1.63 g O-benzylhydroxylamine hydrochloride in the presence of water-soluble carbodiimide and HOBt in DMF gave 3.4 g protected hydroxyamide II (R = PhCH2ONH). Hydrazinolysis of II (R = PhCH2ONH), followed by amidation and catalytic transfer hydrogenolysis with cyclohexene gave desired title compound III. III inhibited human collagenase with IC50 = 1.5 nM.
- AN 1998:42242 CAPLUS
- DN 128:89109
- TI Preparation of hydroxysuccinamide derivatives useful as TNF and/or MMP inhibitors
- IN Hemmi, Mitsue; Neya, Masahiro; Urano, Yasuharu; Shima, Ichiro
- PA Fujisawa Pharmaceutical Co., ltd., Japan
- SO PCT Int. Appl., 173 pp. CODEN: PIXXD2

10614498

DT Patent LA English FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	WO 9747599	A1	19971218	WO 1997-JP2004	19970611 <
	W: JP, US				
	RW: AT, BE,	CH, DE, DK	, ES, FI,	FR, GB, GR, IE, IT, LU,	MC, NL, PT, SE

JP 2000512290 T2 20000919 JP 1998-501438 19970611 <--

PRAI AU 1996-482 A 19960614 WO 1997-JP2004 W 19970611

OS MARPAT 128:89109

IT 200873-54-7P 200874-24-4P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of hydroxysuccinamide derivs. as tumor necrosis factor and matrix metalloproteinase inhibitors)

RN 200873-54-7 CAPLUS

CN Butanediamide, N4-hydroxy-N1-[2-(methylamino)-2-oxo-1-(4-pyridinylmethyl)ethyl]-2-(2-methylpropyl)-3-[[[(phenylamino)carbonyl]amino]methyl]-, [2R-[1(S\*),2R\*,3R\*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 200874-24-4 CAPLUS

CN Butanediamide, N4-hydroxy-N1-[2-(methylamino)-2-oxo-1-(4-pyridinylmethyl)ethyl]-2-(2-methylpropyl)-3-[[[(4-pyridinylamino)carbonyl]amino]methyl]-, [2R-[1(S\*),2R\*,3R\*]]- (9CI) (CA INDEX NAME)

Absolute stereochemistry. Rotation (-).

L5 ANSWER 29 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB R1CO(CH2) nCOR2 [R1 = R2 = (substituted) arylamino, cycloalkylamino, pyridineamino, piperidino, 9-purine-6-amino, thiazoleamino; or R1 ≠ R2 and R1 = NR3R4; R3, R4 = H, OH, (substituted) alkyl, alkenyl, cycloalkyl, aryl, alkoxy, aryloxy, aralkoxy, pyridyl; R3R4N = piperidino; n = 4-8; R2 = hydroxylamino, OH, amino, alkoxy], and related compds., were prepared Thus, 3-HONHCOC6H4CH:CHCONHOH (prepared by reaction of H2NOSiMe3 with the corresponding diacid dichloride) induced terminal differentiation with an optimal concentrate of 4 μM with 73% benzidine reactive cells.

AN 1998:8261 CAPLUS

DN 128:75197

TI Preparation of arylhydroxamates and related compounds as potent inducers of terminal differentiation.

IN Breslow, Ronald; Marks, Paul A.; Rifkind, Richard A.

PA Sloan-Kettering Institute for Cancer Research, USA

SO U.S., 24 pp., Cont.-in-part of U.S. 5,369,108. CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

L LTI.	CIVI				
	PATENT NO.			APPLICATION NO.	
PΙ	US 5700811	Α	19971223		
	US 5369108	A	19941129	US 1991-771760	19911004 <
	HU 67421	A2	19950428	HU 1994-959	19921005 <
	AT 183185	E	19990815	AT 1992-922033	19921005 <
	ES 2134815	Т3	19991016	ES 1992-922033	19921005 <
	JP 2003226680		20030812		
		A		US 1994-222685	
	CA 2190765			CA 1995-2190765	
	WO 9531977			WO 1995-US6554	
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	AU 692561	B2	19980611		
	EP 760657	A1	19970312	EP 1995-921378	19950519 <
	EP 760657	B1	20031112		
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	AT 253906	E	20031115	AT 1995-921378	19950519 <
	ES 2210293	Т3	20040701	ES 1995-921378	19950519
		A1		AU 1996-62063	
	AU 708115	В2	19990729		
	US 6087367	A	20000711	US 1999-314195	19990518 <
	US 38506	E		US 2001-4411	

PRAI US 1991-771760 A2 19911004
JP 1993-507109 A3 19921005
US 1994-222685 A1 19940404
US 1994-246363 A 19940519
WO 1995-US6554 W 19950519

OS MARPAT 128:75197

IT 174664-68-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of arylhydroxamates and related compds. as potent inducers of terminal differentiation)

RN 174664-68-7 CAPLUS

CN Hexanamide, 6-[[[(3-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

L5 ANSWER 30 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB A novel linkage for the solid-phase synthesis of hydroxamic acids using trityl chloride resin as the base matrix is described. Its facile application for the solid-phase synthesis of peptidyl, succinyl, and urea-type hydroxamic acids is illustrated. Cleavage is induced under mild acidic conditions by treatment with formic acid in THF, providing hydroxamic acids in high purity and fair to good yields.

AN 1997:707389 CAPLUS

DN 127:358497

TI A novel linkage for the solid-phase synthesis of hydroxamic acids

AU Bauer, Udo; Ho, Wen-Bin; Koskinen, Ari M. P.

CS Department of Chemistry, University of Oulu, Oulu, FI-90571, Finland

SO Tetrahedron Letters (1997), 38(41), 7233-7236 CODEN: TELEAY; ISSN: 0040-4039

PB Elsevier

DT Journal

LA English

OS CASREACT 127:358497

IT 198565-62-7P

RL: SPN (Synthetic preparation); PREP (Preparation)

(linkage for solid-phase synthesis of hydroxamic acids)

RN 198565-62-7 CAPLUS

CN Acetamide, N-hydroxy-2-[(phenylmethyl)[[(phenylmethyl)amino]carbonyl]amino]- (9CI) (CA INDEX NAME)

RE.CNT 9 THERE ARE 9 CITED REFERENCES AVAILABLE FOR THIS RECORD

## ALL CITATIONS AVAILABLE IN THE RE FORMAT

- L5 ANSWER 31 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN
- AB A new method for the synthesis of succinyl sulfinyl chlorides was applied to the preparation of sulfonamide peptide mimics of matrix metalloproteinase (MMP) inhibitors. Sulfonamide mimics were determined to be active against MMPs and represent promising new leads for further optimization. Urea mimics were also prepared and unstable and prone to hydantoin formation in protic media.
- AN 1997:686349 CAPLUS
- DN 127:355046
- TI Amide surrogates of matrix metalloproteinase inhibitors: urea and sulfonamide mimics
- AU Decicco, Carl P.; Seng, Jennifer L.; Kennedy, Kenneth E.; Covington, Maryanne B.; Welch, Patty K.; Arner, Elizabeth C.; Magolda, Ronald L.; Nelson, David J.
- CS Department of Chemical and Physical Sciences, The Dupont Merck Pharmaceutical Company, Experimental Station, Wilmington, DE, 19800-0500, USA
- SO Bioorganic & Medicinal Chemistry Letters (1997), 7(18), 2331-2336

  CODEN: BMCLE8; ISSN: 0960-894X
- PB Elsevier
- DT Journal
- LA English
- OS CASREACT 127:355046
- IT 198630-47-6P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); PRP (Properties); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(amide surrogates of matrix metalloproteinase inhibitors: urea and sulfonamide mimics)

RN 198630-47-6 CAPLUS

Absolute stereochemistry.

RE.CNT 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 32 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN GI

AB The title compds., N-(dialkylcarbamoyl)phenylalanine derivs., represented by general formula R1R2CHCH2NR3CONHCHR5(A) nR4 and salts thereof, [wherein R1, R5 = carboxyl optionally converted into ester, amide, or hydroxamic acid, phosphono optionally converted into ester; R2 = H, lower alkyl, (substituted) phenyl-lower alkyl, lower alkoxy, (substituted) phenyl-lower alkoxy; R3 = lower alkyl or (substituted) phenyl-lower alkyl; R4 = (un) substituted biphenylyl, naphthylphenyl, naphthyl] are prepared These compds. have an endopeptidase 24.11 inhibitory activity and are useful for treating cardiovascular diseases such as cardiac failure and hypertension, kidney diseases such as renal failure, gastrointestinal disorders such as diarrhea and gastric hyperacidity, endocrine-metabolic diseases such as obesity, and autoimmune diseases such as rheumatism, and for mitigating muscular pain and migraine. Thus, a urea derivative (I; R = HO, Ra = CH2Ph) was condensed with O-benzylhydroxylamine hydrochloride using 1-hydroxybenzotriazole and 1-ethyl-3-(3-dimethylaminopropyl)carbodiimide hydrochloride in the presence of N-methylmorpholine in CH2Cl2 to give the hydroxamic acid ester I (R = PhCH2ONH, Ra = CH2Ph), which was hydrogenolyzed in the presence of 20% Pd(OH)2 under H atmospheric in THF for 4 h

to give the title compound I (R = HONH, Ra = H), which in vitro showed IC50 of 2.1 + 10-9 M against endopeptidase 12.11 preparation from rat kidney.

AN 1996:527317 CAPLUS

DN 125:168646

TI Preparation of novel 1,3-dialkylurea derivatives endopeptidase 24.11 inhibitors

IN Kawashima, Yoichi; Fujimura, Ken-ichi; Suhara, Hiroshi; Yamamoto, Noriyoshi; Matsumoto, Hiromi; Miyawaki, Nobuaki; Fujita, Yuko

PA Santen Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 144 pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

LWM.	CNII			
	PATENT NO.	KIND DATE	APPLICATION NO.	DATE
PI	WO 9618606	A1 19960620	WO 1995-JP2539	19951211 <
	W: CA, CN, FI,	KR, NO, US		
	RW: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IE, IT, LU, MC,	NL, PT, SE
	JP 08231492	A2 19960910	JP 1995-320253	19951208 <
	JP 2920741	B2 19990719		
	EP 798291	A1 19971001	EP 1995-939417	19951211 <
	EP 798291	B1 20020911		
	R: CH, DE, FR,	GB, IT, LI		
	US 5968980	A 19991019	US 1997-849402	19970603 <
PRAI	JP 1994-310493	A 19941214		
	WO 1995-JP2539	W 19951211		
os	MARPAT 125:168646			

IT 180317-41-3P 180318-28-9P 180471-15-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(dialkylcarbamoyl)phenylalanine derivs. as endopeptidase 24.11 inhibitors for disease therapy)

RN 180317-41-3 CAPLUS

CN [1,1'-Biphenyl]-4-propanoic acid, α-[[[[3-(hydroxyamino)-3oxopropyl](2-methylpropyl)amino]carbonyl]amino]-, 1,1-dimethylethyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 180318-28-9 CAPLUS

CN [1,1'-Biphenyl]-4-propanoic acid,  $\alpha$ -[[[2-[(hydroxyamino)carbonyl]-4-phenylbutyl](2-methylpropyl)amino]carbonyl]amino]-, [S-(R\*,S\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 180471-15-2 CAPLUS

CN [1,1'-Biphenyl]-4-propanoic acid,  $\alpha$ -[[[2-[(hydroxyamino)carbonyl]-4-phenylbutyl](2-methylpropyl)amino]carbonyl]amino]-, [S-(R\*,R\*)]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

L5 ANSWER 33 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

N-(N-hydroxyalkyl-N-alkylcarbamoyl)amino acid compds. represented by AΒ general formula R1CH(OH)CH2NR2CONHCHR3R4 (wherein R1 and R4 represent carboxyl optionally converted into an ester, amide or hydroxamate group; R2 represents lower alkyl or Ph lower alkyl; R3 represents hydrogen, lower alkyl, amino lower alkyl, lower alkylamino lower alkyl, hydroxy lower alkyl, mercapto lower alkyl, carboxy lower alkyl, lower alkoxycarbonyl lower alkyl, imidazolyl lower alkyl, indolyl lower alkyl, optionally substituted Ph, optionally substituted Ph lower alkyl, optionally substituted naphthyl or optionally substituted naphthyl lower alkyl) and salts thereof are prepared These compound have an inhibitory effect on endopeptidase 24.11 and being useful as a remedy for cardiovascular diseases such as cardiac insufficiency and hypertension, kidney diseases such as renal insufficiency, gastrointestinal disorders such as diarrhea and gastric hyperacidity, endocrine/metabolic diseases such as obesity, and autoimmune diseases such as rheumatism, and as analgesic agents for muscular pain, hemicrania, etc. (no data). Thus, 293 mg H-Phe-OEt.HCl was stirred with 247 mg 1,1'-carbonyldiimidazole and 86 mg imidazole in THF at room temperature for 20 min, treated with a solution of 241 mg Et (RS)-2-hydroxy-3-(N-isobutyl)aminopropionate in THF, and refluxed for 30 min to give (RS)-EtO2CCH(OH)CH2N(iso-Bu)CO-Phe-OEt.

AN 1996:462322 CAPLUS

DN 125:143295

TI Preparation of novel 1,3-dialkylurea derivatives having hydroxyl group as endopeptidase inhibitors

IN Kawashima, Yoichi; Fujimura, Ken-ichi; Suhara, Hiroshi; Miyawaki, Nobuaki; Fujita, Yuko

PA Santen Pharmaceutical Co., Ltd., Japan

SO PCT Int. Appl., 122 pp. CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

FAIV.		KIND DATE	APPLICATION NO.	DATE
PI		A1 19960517	WO 1995-JP2236	19951101 <
	· · · · · · · · · · · · · · · · · · ·	·	GB, GR, IE, IT, LU, MC	NI. PT SE
			CA 1995-2180021	
			JP 1995-284862	
	JP 2829501			
	EP 738711	A1 19961023	EP 1995-936083	19951101 <
	EP 738711	B1 20000308		
	R: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IE, IT, LI, LU	, MC, NL, PT, SE
	CN 1138321	A 19961218	CN 1995-191137	19951101 <
	CN 1055681	B 20000823		•
	AT 190304	E 20000315	AT 1995-936083	19951101 <
	ES 2145929	T3 20000716	ES 1995-936083	19951101 <
	NO 9602810	A 19960703	NO 1996-2810	19960703 <
	NO 306944			
	FI 9602751	A 19960704	FI 1996-2751	19960704 <
	US 5891912	A 19990406	US 1996-663239	19960715 <
PRAI	JP 1994-270957			
	WO 1995-JP2236	W 19951101		
os	MARPAT 125:143295			

IT 179177-47-0P 179177-48-1P 179177-49-2P 179177-50-5P 179177-54-9P 179177-57-2P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of N-(N-hydroxyalkyl-N-alkylcarbamoyl) amino acid derivs. as endopeptidase inhibitors for disease therapy)

RN 179177-47-0 CAPLUS

CN

L-Phenylalanine, N-[[[2-hydroxy-3-(hydroxyamino)-3-oxopropyl](2-methylpropyl)amino]carbonyl]-, 1,1-dimethylethyl ester, (R)- (9CI) (CAINDEX NAME)

Absolute stereochemistry.

RN 179177-48-1 CAPLUS

CN L-Phenylalanine, N-[[[2-hydroxy-3-(hydroxyamino)-3-oxopropyl](2-methylpropyl)amino]carbonyl]-, 1,1-dimethylethyl ester, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 179177-49-2 CAPLUS

CN L-Phenylalanine, N-[[[2-hydroxy-3-(hydroxyamino)-3-oxopropyl](2-methylpropyl)amino]carbonyl]-, (R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 179177-50-5 CAPLUS

CN L-Phenylalanine, N-[[[2-hydroxy-3-(hydroxyamino)-3-oxopropyl](2-methylpropyl)amino]carbonyl]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 179177-54-9 CAPLUS

CN [1,1'-Biphenyl]-4-propanoic acid, α-[[[2-hydroxy-3-(hydroxyamino)-3oxopropyl](2-methylpropyl)amino]carbonyl]amino]-, [S-(R\*,R\*)]- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (-).

RN 179177-57-2 CAPLUS

CN 2-Naphthalenepropanoic acid, α-[[[2-hydroxy-3-(hydroxyamino)-3oxopropyl](2-methylpropyl)amino]carbonyl]amino]-, [S-(R\*,R\*)]- (9CI) (CA
INDEX NAME)

Absolute stereochemistry. Rotation (-).

L5 ANSWER 34 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB Alkanedicarboxylic acid amides R1CO(CH2)nCOR2 [I; wherein each of R1 and R2 are independently the same or different from each other; R1 and R2 are the same, each is a substituted or unsubstituted arylamino, cycloalkylamino, pyridineamino, piperidino, 9-purine-6-amine, or thiazoleamino group; when R1 and R2 are different, R1 = R3-NR4, wherein each of R3 and R4 are independently the same as or different from each other and are H, HO, (un)substituted, branched or unbranched alkyl,

alkenyl, cycloalkyl, aryl, alkyloxy, aryloxy, arylalkyloxy, or pyridine group, or R3 and R4 bond together to form a piperidine group and R2 is a hydroxylamino, HO, NH2, alkylamino, dialkylamino or alkyloxy group; n = an integer from about 4-8], which inhibit proliferation of such cells and are useful for treating a patient having a tumor characterized by proliferation of neoplastic cells, are prepared Thus, chlorination of suberic acid monomethyl ester with oxalyl chloride benzene containing DMF to suberoyl chloride followed by condensation with O-benzylhydroxylamine in pyridine/CHCl3 at room temperature overnight gave 89% PhCH2ONHCO(CH2)6CO2Me. Hydrogenolysis of the latter compound in the presence of 5% Pd-C under .apprx.50 psi H atmospheric to HONHC(O)(CH2)6CO2Me followed by saponification with KOH in

aqueous MeOH under reflux for 2 h and acidification with concentrated HCl gave HONHC(O)(CH2)6CO2H. PhONHC(O)(CH2)6C(O)NHOH at 3  $\mu$ M in vitro induced the differentiation of MELC cells and HL-60 human leukemia cells by 21 and 65%, resp.

AN 1996:181546 CAPLUS

DN 124:260602

TI Preparation of alkanedicarboxylic acid amides as novel potent inducers of terminal differentiation of neoplastic cell

IN Breslow, Ronald; Marks, Paul A.; Rifkind, Richard A.

PA Sloan-Kettering Institute for Cancer Research, USA; Trustees of Columbia University in the City of New York

SO PCT Int. Appl., 98 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

	PATENT NO.		APPLICATION NO.	DATE
				<b>-</b>
PI	WO 9531977	A1 19951130	WO 1995-US6554	19950519 <
	W: AU, CA, JP,	MX		
	• • •		GB, GR, IE, IT, LU, MC,	NL, PT, SE
	US 5700811	A 19971223	US 1994-246363	19940519 <
	AU 9526474	A1 19951218	AU 1995-26474	19950519 <
	AU 692561	B2 19980611		
	EP 760657	A1 19970312	EP 1995-921378	19950519 <
	EP 760657	B1 20031112		
	R: AT, BE, CH,	DE, DK, ES, FR,	GB, GR, IE, IT, LI, LU,	MC, NL, PT, SE
	AT 253906	E 20031115	AT 1995-921378	19950519 <
PRAI	US 1994-246363			
	US 1991-771760	A2 19911004		
	WO 1995-US6554	W 19950519		
os	MARPAT 124:260602			

IT 174664-67-6P 174664-68-7P

RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of alkanedicarboxylic acid amides as inducers of terminal differentiation of neoplastic cell and as anticancer agents)

RN 174664-67-6 CAPLUS

CN Hexanamide, N-hydroxy-6-[[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX NAME)

RN 174664-68-7 CAPLUS

Hexanamide, 6-[[[(3-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI) CN (CA INDEX NAME)

Page 160

C1 
$$NH-C-NH-(CH_2)_5-C-NH-OH$$

L5 ANSWER 35 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

1,3,5-Substituted biurets (NHRCONR1CONHR2), where R = H, lower alkyl, AΒ substituted lower alkyl (Cl, CN, NMe2, OH, OMe, or COOH), lower alkenyl, OH, OMe, Ac, or Ph; R1 = H, lower alkyl, or Ph; and R2 = Ph, substituted Ph (halogen, CF3, Me, OMe, methylenedioxy, OH, NMe2, COOH, or CO2Me), benzyl, pyridyl, etc. were synthesized and analgesic, antiinflammatory, and antipyretic prepns. containing these compds. are described. The biurets were prepared by reacting NHRCONHR1 with R2NCO, NHR1CONHR2 with RNCO, NHRCONR1COCl with R1NH2, NHR2CONR1COCl with RNH2, diazetidine-2,4-dione containing either R and R1 or R2 and R1 in positions 1 and 3, resp., with R2NH2 or RNH2, resp., and a 1,3,5-oxadiazine-2,4,6-trione containing either R and R1 or R2 and R1 at positions 3 and 5, resp., with R2NH2 or RNH2, resp. Formulations of capsules, injections, salves, suppositories, and tablets containing representatives of these compds. are presented.

AN 1981:52955 CAPLUS

DN 94:52955

TI Pharmaceutical composition containing 1,3,5-substituted biurets

IN Fujimura, Hajime; Hiramatsu, Yasuzo; Yabuuchi, Takahiro; Hisaki, Masaktu; Takikawa, Katsuo; Honna, Takaji; Miyake, Hidekazu; Kajitani, Makoto

PA Taiho Yakuhin Koqyo K. K., Japan

SO Ger. Offen., 59 pp.

CODEN: GWXXBX

DTPatent

LΑ German

FAN.CNT 2

CAM.	CNI Z				
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	DE 3012190	<b>A1</b>	19801002	DE 1980-3012190	19800328 <
	DE 3012190	C2	19850926		
	JP 55130910	A2	19801011	JP 1979-38791	19790331 <
	JP 63023966	B4	19880518		
	JP 55130912	A2	19801011	JP 1979-38793	19790331 <
	JP 63050325	B4	19881007		
	US 4287207	A	19810901	US 1980-134411	19800327 <
	FR 2452925	A1	19801031	FR 1980-7036	19800328 <
	FR 2452925	B1	19830624	•	
	GB 2055043	A	19810225	GB 1980-10753	19800331 <
	US 4350700	A	19820921	US 1981-257583	19810427 <
PRAI	JP 1979-38791	A	19790331		
	JP 1979-38793	A	19790331		
	JP 1979-38792		19790331		
	JP 1979-38794		19790331		
	US 1980-134411	<b>A</b> 3	19800327		
os	CASREACT 94:52955;	MARPAT	94:52955		
IT	76298-87-8P				

RL: PREP (Preparation)

(preparation of, for analgesic and antiinflammatory and antipyretic formulations)

RN 76298-87-8 CAPLUS

Imidodicarbonic diamide, N-hydroxy-2-methyl-N'-phenyl- (9CI) (CA INDEX CN NAME)

ANSWER 36 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN L5

HO2CCHRNHCONHCHR1CONHOH [R = H, CH2CHMe2, Me, CH2Ph, (CH2)4NH2, hexyl; R1 AB = H, CH2Ph] were prepared as inhibitors of angiotensin-coverting enzyme. They inhibited the rabbit lung enzyme at 0.4-3.2 + 10-5 mol/L. Thus, H2NOCH2Ph.HCl was treated with BOC-Gly-OH (BOC = Me3CO2C) to give BOC-Gly-NHOCH2Ph which was cleaved with CF3CO2H to give H-Gly-NHOCH2Ph.CF3CO2H. The latter was treated with phosgene and H-Gly-OEt.HCl to give PhONHCOCH2NHCO-Gly-OEt which was hydrogenated and saponified to give HONHCOCH2NHCO-Gly-OH.

AN 1978:170496 CAPLUS

DN 88:170496

Substituted ureidoacetohydroxamic acids ΤI

Fessler, Dyral C.; Massey, Thomas H.; Heavner, George A. IN

Morton-Norwich Products, Inc., USA PΑ

Ger. Offen., 15 pp. SO

CODEN: GWXXBX

DTPatent

German T.A

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
ΡI	DE 2729583	A1	19780112	DE 1977-2729583	19770630 <
	US 4028401	Α	19770607	US 1976-701658	19760701 <
PRAI	US 1976-701658	A	19760701		
TT	66336-78-5P				

RL: SPN (Synthetic preparation); PREP (Preparation) (preparation of)

PN 66336-78-5 CAPLUS

L-Phenylalanine, N-[[[2-(hydroxyamino)-2-oxoethyl]amino]carbonyl]- (9CI) CN (CA INDEX NAME)

Absolute stereochemistry.

L5 ANSWER 37 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

Psychotropic RCONHOH (R = e.g. CBu3, 5,5-diphenylhydantoinylmethyl, AB CH2CONPh2, CH2NHCOCHPh2, CH2SOCH2C6H4Cl-4, phenothiazinylethyl, 1-phenyl-2-benzimidazolylmethyl, CH2NHC6H3Cl2-3,4, CH2NHCONHC6H4Cl-4) (38

compds.) were prepared Thus, Bu3CCO2H was chlorinated and treated with NH2OH.HCl to give 48% Bu3CCONHOH, which had tranquilizing activity in mice. Ph2NCOCH2CONHOH, at 100 mg/kg in 2 doses 2 h apart in rats, also lowered arterial blood pressure 10% and decreased heart frequency 8%.

- AN 1978:22917 CAPLUS
- DN 88:22917
- Acetohydroxamic acids ΤI
- Lafon, Louis IN
- Laboratoire L. Lafon S. A., Fr. PA
- so Ger. Offen., 105 pp.
- CODEN: GWXXBX
- Patent DT

LA	German							
FAN.	.CNT 3							
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE			
ΡI	DE 2711451	A1	19771006	DE 1977-2711451	19770316 <			
	DE 2711451 DE 2711451	C2	19900510	DB 13// 2/11431	15770510 <			
	GB 1574822	A	19800910	GB 1976-11710	19760323 <			
	FR 2345430	A1	19771021	FR 1977-6997	19770309 <			
	FR 2345430	B1	19820723					
	ZA 7701584	A	19780726	ZA 1977-1584	19770316 <			
	AU 7723344	A1	19780921	AU 1977-23344	19770317 <			
	AU 516473	B2	19810604					
	US 4122186	A	19781024	US 1977-778543	19770317 <			
	FI 7700859	A	19770924	FI 1977-859	19770318 <			
	FI 62821	В	19821130					
	FI 62821	С	19830310					
	AT 7701930	A	19790915	AT 1977-1930	19770321 <			
	AT 356078	В	19800410					
	CH 620894	A	19801231	CH 1977-3479	19770321 <			
	IL 51705	A1	19820930	IL 1977-51705	19770321 <			
	BE 852738	A1	19770922	BE 1977-175998	19770322 <			
	DK 7701266	Α	19770924	DK 1977-1266	19770322 <			
	DK 171197	B1	19960722					
	SE 7703263	Α	19770924	SE 1977-3263	19770322 <			
	SE 432420	В	19840402					
	SE 432420	С	19840712					
	NO 7701006	A	19770926	NO 1977-1006	19770322 <			
	NO 144420	В	19810518					
	NO 144420	С	19810826					
	HU 172677	В	19771128	HU 1977-LA912	19770322 <			
	ES 457105	A1	19781016	ES 1977-457105	19770322 <			
	CS 200511	P	19800915	CS 1977-1904	19770322 <			
	NL 7703168	A	19770927	NL 1977-3168	19770323 <			
	NL 188801	В	19920506					
	NL 188801	C	19921001					
	JP 52144601	A2	19771202	JP 1977-32011	19770323 <			
	JP 62008424	B4	19870223					
	DD 129645	C	19780201	DD 1977-198023	19770323 <			
	SU 689617	D	19790930	SU 1977-2465454	19770323 <			
	PL 113772	B1	19801231	PL 1977-198229	19770519 <			
	BE 863947	A4	19780529	BE 1978-185158	19780214 <			
	US 4151300	A	19790424	US 1978-930927	19780804 <			
	US 4152458	A	19790501	US 1978-930926	19780804 <			
	US 4183951	A	19800115	US 1978-930925	19780804 <			
	US 4209523	A	19800624	US 1978-930924	19780804 <			
	US 4209524	A	19800624	US 1978-930928	19780804 <			
	AT 7808399	A	19800215	AT 1978-8399	19781124 <			
	AT 358556	В	19800925					

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     AT 7808398
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     AT 361932
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                                             AT 1978-8400
     AT 362793
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                         Α
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     US 4325964
                         Α
                                 19820420
                                             US 1979-107609
                                                                     19791227 <--
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                                             FR 1980-5644
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     FR 2453148
                          В1
                                 19831202
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                                             FR 1980-5645
                                                                     19800313 <--
     FR 2453133
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                                 19840406
                          A1
                                 19801031
                                             FR 1980-5646
                                                                     19800313 <--
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     FR 2453158
                          В1
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                                 19830815
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                                             NO 1980-3336
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     GB 1977-16705
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     US 1978-930925
                                 19780804
                          A3
IT
     65051-23-2P
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        (preparation and psychotropic activity of)
RN
     65051-23-2 CAPLUS
CN
     Acetamide, N-hydroxy-2-[[(phenylamino)carbonyl]amino]- (9CI) (CA INDEX
     NAME)
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IT 65051-50-5P

RN 65051-50-5 CAPLUS

CN Acetamide, 2-[[[(4-chlorophenyl)amino]carbonyl]amino]-N-hydroxy- (9CI) (CA INDEX NAME)

L5 ANSWER 38 OF 38 CAPLUS COPYRIGHT 2006 ACS on STN

AB Antihypertensive HO2CCHRNHCONHCHR1CONHOH [I; R = H, DL-Me, L-Me, DL-CH2CHMe2, DL-CH2Ph, L-(CH2)4NH2, DL-(CH2)7Me, R1 = H; R = L-Me, R1 = L-CH2Ph] were prepared by treating R2O2CHRNH2 (R2 = PhCH2, Me, Et) with H2NCHR1CONHOCH2Ph and COCl2 or 1,1'-carbonyldimidazole and deblocking the resulting R2O2CHRNHCONHCHR1CONHOH (II). Thus, Me3CO2C-Gly-OH was coupled to H2NOCH2Ph by he mixed anhydride method to give BOC-Gly-NHOCH2Ph, which was cleaved with CF3CO2H to give H-Gly-NHOCH2Ph. The latter was treated with H-DL-Ph-OMe and COCl2 in toluene/pyridine to give II (R = DL-CH2Ph, R1 = H, R2 = Me), which was hydrogenated over Pd/C and saponified with 1N NaOH to give I (R = DL-CH2Ph, R1 = H). I are antihypertensives since they are inhibitors of angiotensin converting enzyme (III); I inhibit pure III isolated from rabbit lung tissue at levels of 0.4-3.2 + 10-5 mole/L.

AN 1977:468654 CAPLUS

DN 87:68654

TI (Substituted) ureidoacetohydroxamic acids

IN Fessler, Dyral C.; Heavner, George A.; Massey, Thomas H.

PA Morton-Norwich Products, Inc., USA

SO U.S., 5 pp.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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	AU 7724759	A1	19781109	AU 1977-24759	19770502 <
	GB 1525907	Α	19780927	GB 1977-19396	19770509 <
	NL 7706295	Α	19780103	NL 1977-6295	19770608 <
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	FR 2356626	A1	19780127	FR 1977-20190	19770630 <

PRAI US 1976-701658 A 19760701

IT 63648-98-6P

RL: SPN (Synthetic preparation); PREP (Preparation)

(preparation of)

RN 63648-98-6 CAPLUS

CN Phenylalanine, N-[[[2-(hydroxyamino)-2-oxoethyl]amino]carbonyl]- (9CI) (CA INDEX NAME)

=> FIL STNGUIDE

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FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: May 2, 2006 (20060502/UP).

=> logoff y

COST IN U.S. DOLLARS SINCE FILE TOTAL **ENTRY** SESSION FULL ESTIMATED COST 0.84 366.59 DISCOUNT AMOUNTS (FOR QUALIFYING ACCOUNTS) SINCE FILE TOTAL ENTRY SESSION CA SUBSCRIBER PRICE 0.00 -28.50

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